

# LEARNING STRAND 2 SCIENTIFIC AND CRITICAL THINKING SKILLS

## MODULE 2: WHY AM I WEALTHY WHEN I'M HEALTHY?

ALS Accreditation and Equivalency Program: Junior High School







**WHY AM I WEALTHY  
WHEN I'M HEALTHY?**

---

**SCIENTIFIC AND CRITICAL THINKING SKILLS  
MODULE 2**

**ALS Accreditation and Equivalency Program:** Junior High School  
**Learning Strand 2:** Scientific and Critical Thinking Skills  
**Module 2:** Why Am I Wealthy When I'm Healthy?

Published in 2020 by the United Nations Educational, Scientific and Cultural Organization  
UNESCO Office, Jakarta  
Jalan Galuh II No. 5, Kebayoran Baru, Jakarta, Indonesia

*and*

Department of Education  
DepEd Complex, Meralco Avenue, Pasig City, Philippines

Copyright © UNESCO and DepEd 2020

This publication is available in Open Access under the Attribution-Share Alike 3.0 IGO (CC-BY-SA) 3.0 IGO license (<http://creativecommons.org/licenses/by-sa/3.0/igo/>). By using the content of this publication, the users accept to be bound by the terms of use of the UNESCO Open Access Repository (<http://www.unesco.org/open-access/terms-use-ccbysa-en>).

The designations employed and the presentation of material throughout this publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The selection and presentation of the material contained in this publication, as well as the opinions expressed herein are the sole responsibility of the authors and not necessarily those of UNESCO, nor do they commit the organization in any way.

This educational resource material was developed and printed through the project “Better Life for Out-of-School Girls to Fight Against Poverty and Injustice in the Philippines” with financial support from Korea International Cooperation Agency (KOICA).

Printed by APC Printers Corporation  
Printed in Makati City, Philippines

ISBN 888-888-8888-88-8

## DEVELOPMENT TEAM



Jenelyn Marasigan Baylon	Master Teacher I, ALS Task Force (On-detail)
Kristine Lee S. Lumanog	Education Program Specialist II, ALS Task Force (On-detail)
Judy R. Mendoza	Project Development Officer III, Bureau of Learning Resources
Reyangie V. Sandoval	Education Program Specialist II, Bureau of Learning Resources
Josephine C. Intino	Senior Education Program Specialist, Bureau of Curriculum Development
Eric U. Labre	Senior Education Program Specialist, Bureau of Learning Resources
Roderick P. Corpuz	Supervising Education Program Specialist, ALS Task Force
Daisy Asuncion O. Santos	Chief Education Program Specialist, Bureau of Learning Resources
Marilette R. Almayda	Director III/Head, ALS Task Force
Ariz Delson Acay D. Cawilan	Officer-In-Charge, Office of the Director IV, Bureau of Learning Resources
G. H. S. Ambat	Assistant Secretary for Alternative Learning System Program and Task Force
Tonisito M. C. Umali	Undersecretary for Legislative Liaison Office, External Partnership Service and Project Management Service
Leonor Magtolis Briones	Secretary



Joshua Olindan	Author
Ferdinand Valencia	Content Expert
Bernadette Sison	Admin and Finance Staff
Mildred Parbo	Project Lead
Ma. Teresita Medado	President

### Content and Language Evaluators and Instructional Design Reviewer

Dalisay E. Esguerra	Schools Division Office of Malabon City, Department of Education
Ray Butch Mahinay	Regional Office X – Northern Mindanao, Department of Education
Mylene A. Manalansan	University of the Assumption/DLSU



United Nations  
Educational, Scientific and  
Cultural Organization

Ade Sandra	Admin and Finance Assistant
Rusyda Djamhur	Project Assistant
Marmon Abutas Pagunsan	National Project Consultant
Remegio Alquitran	National Project Officer
Maria Karisma Bea Agarao	National Programme Coordinator
Mee Young Choi	Head of Education Unit
Shahbaz Khan	Director and Representative

# User's Guide

## *For the ALS Learner:*

Welcome to this Module entitled Why Am I Wealthy When I'm Healthy? under Learning Strand 2 Scientific and Critical Thinking Skills of the ALS K to 12 Basic Education (BEC).

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be able to process the contents of the learning resource while being an active learner.

This module has the following parts and corresponding icons:



### *Let's Get to Know*

This will give you an idea of the skills or competencies you are expected to learn in the module.



### *Pre-assessment*

This part includes an activity that aims to check what you already know about the lesson. If you get all the answers correct (100%), you may decide to skip this module.



### *Setting the Path*

This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.



### *Trying This Out*

This comprises activities for independent practice to solidify your understanding and skills of the topic. You may check the answers to the exercises using the Answer Key at the end of the module.



### *Understanding What You Did*

This includes questions that process what you learned from the lesson.



### *Sharpening Your Skills*

This section provides an activity that will help you transfer your new knowledge or skill in real-life situations or concerns.



### *Treading the Road to Mastery*

This is a task which aims to evaluate your level of mastery in achieving the given learning competency.



### *Don't Forget*

This part serves as a summary of the lessons in the module.



### *Explore More*

In this portion, another activity will be given to you to enrich your knowledge or skill of the lesson learned. This also tends retention of learned concepts.



### *Reach the Top*

This part will assess your level of mastery in achieving the learning competencies in each lesson in the module.

### *Answer Key*

This contains answers to all activities in the module.

### *Glossary*

This portion gives information about the meanings of the specialized words used in the module.

At the end of this module you will also find:

***References***

This is a list of all sources used in developing this module.

The following are some reminders in using this module:

1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Don't forget to answer the Pre-assessment before moving on to the other activities included in the module.
3. Read the instruction carefully before doing each task.
4. Observe honesty and integrity in doing the tasks and checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your ALS Teacher/Instructional Manager/Learning Facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your ALS Teacher/Instructional Manager/Learning Facilitator. Always bear in mind that you are not alone.

We hope that through this material, you will experience meaningful learning and gain deep understanding of the relevant competencies. You can do it!

# CONTENTS

<b>Let's Get to Know</b>	1
<b>Pre-Assessment</b>	2
<b>LESSON 1: How Do I Get to Know the People in My Community?</b>	6
Setting the Path	6
Trying This Out	7
Understanding What You Did	8
Sharpening Your Skills	16
Treading the Road to Mastery	19
<b>LESSON 2: How Does the Environment Affect the Health of My Family and My Community?</b>	20
Setting the Path	20
Trying This Out	21
Understanding What You did	22
Sharpening Your Skills	23
Treading the Road to Mastery	26
<b>LESSON 3: How Do I Help in Solving the Health Problems in My Community?</b>	27
Setting the Path	27
Trying This Out	28
Understanding What You Did	29



# CONTENTS

---

Sharpening Your Skills	32
Treading the Road to Mastery	33
<b>Don't Forget</b>	34
<b>Explore More</b>	36
<b>Reach the Top</b>	37
<b>Answer Key</b>	38
<b>Glossary</b>	48
<b>References</b>	49





## MODULE 2

# LET'S GET TO KNOW



The newly elected Barangay Captain Joshua Natividad noticed that a large percentage of the community, particularly the children, is suffering from malnutrition and infectious disease. In just a few days, more and more people, even adults, are admitted to clinics and hospitals. Let us help Capt. Natividad find the cause of the problem and formulate best solution.



## MODULE 2

# PRE-ASSESSMENT

---

**Directions:** Choose the letter of the best answer. Write your answers on a separate sheet of paper.

1. Which of the following parts of a survey contains questions and corresponding answers?
  - A. items and response sets
  - B. demographics
  - C. closing statement
  - D. title
  
2. Which of the following best describes an introduction of a survey?
  - A. represents the purpose of the survey
  - B. explains the nature of the study, the type of data to be collected, how the data will be used, stored, and managed, and incentives that the respondent may receive after participating in the survey
  - C. lists clear and concise set of instructions that will be explained to the respondents at the beginning of the survey
  - D. details about the respondent which can be helpful in the research (e.g. gender, age, religion)
  
3. Which of the following is NOT a purpose of a survey?
  - A. know the characteristics, actions, or opinions of a large group of people
  - B. study the needs of a large group of people
  - C. disregard the effect of an event to a large group of people
  - D. evaluate the demands of a large group of people
  
4. Which of the following best describes a sample in a survey?
  - A. the total number of people that can be surveyed
  - B. a tool to gather data in a research
  - C. a sentence or statement that aims to receive an answer
  - D. a specific portion of the entire group being surveyed

## MODULE 2

---

5. Which of the following is NOT a characteristic of a good question?
- A. Questions should be complex enough to only be understood by intelligent respondents.
  - B. Questions should be answerable by the respondent.
  - C. Questions should not favor any person, group, or idea.
  - D. Questions should be independent of each other.
6. Which of the following is NOT a determinant of health in a social and economic environment?
- A. income
  - B. healthy workplace
  - C. social support
  - D. access to health service
7. Which of the following determinants of health refers to a person's genetics, eating habits, exercise routine, and vices?
- A. social and economic environment
  - B. physical environment
  - C. individual characteristics and behavior
  - D. cognitive and affective development
8. Which of the following evidences of health involves road accidents, pollution from burning fossil fuels, climate change, and loss of land?
- A. food safety
  - B. agriculture
  - C. waste
  - D. transport
9. Which of the following is NOT an example of an evidence of health in the agriculture sector?
- A. micronutrient deficiency
  - B. livestock use – vector-borne diseases
  - C. tobacco farming
  - D. pesticide usage

## MODULE 2

---

10. Which of the following evidences refers to products released by humans, animals, industries, radioactive facilities, and healthcare facilities?
- A. food safety
  - B. waste
  - C. transport
  - D. agriculture
11. Which of the following steps in problem-solving answers the questions “Why is it a problem?”, “Can it be solved”, and “Why hasn’t it been solved yet?”?
- A. allocate resources
  - B. monitor
  - C. identify the problem
  - D. define the problem
12. Which of the following best describes the evaluate stage problem solving?
- A. you will see the progress of the problem-solving process
  - B. you will think of possible ways to solve a problem
  - C. you will give a definition of the problem
  - D. you will assess the results of the solution
13. Which of the following is NOT a question being asked in the monitor stage of problem solving?
- A. How can I measure the success of the solution?
  - B. Are the proposed solutions considered the most effective in solving the problem?
  - C. Are there other possible solutions to the problem?
  - D. Am I working closer to finding a solution to the problem?

## MODULE 2

---

14. Which of the following does NOT refer to a result of the solution?
- A. the result can be immediate
  - B. the result will tell you the stages involved in solving the problem
  - C. the result will tell you whether the solution you chose to solve your problem was effective or not
  - D. the result might take several stages to be collected
15. Which of the following should a person be aware of when defining a problem?
- A. synonyms
  - B. chromosomes
  - C. homophones
  - D. gerunds



## LESSON 1

# SETTING THE PATH

---

# HOW DO I GET TO KNOW THE PEOPLE IN MY COMMUNITY?

At the end of this lesson, you will be able to:



identify the parts of a simple survey (LS3 MP-NS-PSF-LJHS-17); and



enumerate the step-by-step process of conducting a survey (LS3MP-NS-PSF-LJHS-17).





## LESSON 1

# TRYING THIS OUT

1. You are interviewing an applicant for a job.
2. You are asking significant questions to know the applicant well. The table below shows her answers to your questions.
3. Complete the table by writing the correct questions to the answers provided. Write your answers on a separate sheet of paper.



YOU (QUESTION)	APPLICANT (ANSWER)
1.	I am Juan Santiago De la Cruz.
2.	I am living in Quezon City.
3.	I was born in Bacolod.
4.	I am 25 years old.
5.	I completed high school in Quezon City.
6.	I would like to be a production assistant in the company.
7.	I am willing to be trained.

4. *Questions:*
  - a. If you ask Question #1 to your applicant, will you be able to get the same information like in Answer #4? Why? Why not?
  - b. Aside from what you have already written, give another possible question to get the same answer in #6.
  - c. Is it important to plan a list of questions before the actual interview? Why? Why not?



## LESSON 1

# UNDERSTANDING WHAT YOU DID

Preparing for an interview is important for both interviewer and applicant. Having the right questions to ask is as important as giving the right answers. A successful interview is when the interviewer knows the applicant better after their conversation. An interview is a popular type of survey.

A **survey** is a tool to gather data in research. A survey also has a specific purpose: to collect information from a large group of people.



Figure 1.1. Conducting an interview.

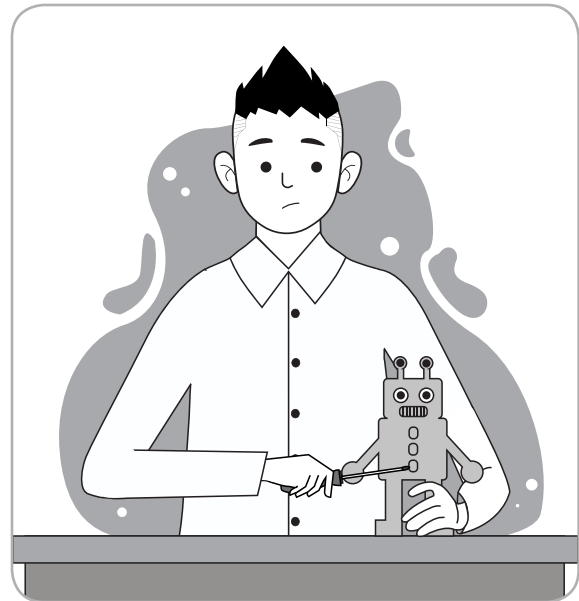


Figure 1.2. Exchanging information during an interview by asking questions to many people (left); fastening a screw using a screwdriver and not a hammer (right).

### **A survey has six parts:**

1. **Title** – represents the purpose of the survey
2. **Introduction** – explains the nature of the study, the type of data to be collected, how the data will be used, stored, and managed, and incentives that the respondent may receive after participating in the survey
3. **Instructions** – lists clear and concise set of instructions that will be explained to the respondents at the beginning of the survey
4. **Items and Response sets** – shows the questions and corresponding answers of the survey
5. **Demographics** – details about the respondent which can be helpful in the research (e.g. gender, age, religion)
6. **Closing statement** – indicates the final part of the survey which contains a brief statement of thanks to the respondent; this can be likened to a screwdriver where all screws are tightly fastened on all surfaces

# LESSON 1

In a survey, you know that you did a good job if you were able to do one of the following:

## A. Know the characteristics, actions, or opinions of a large group of people

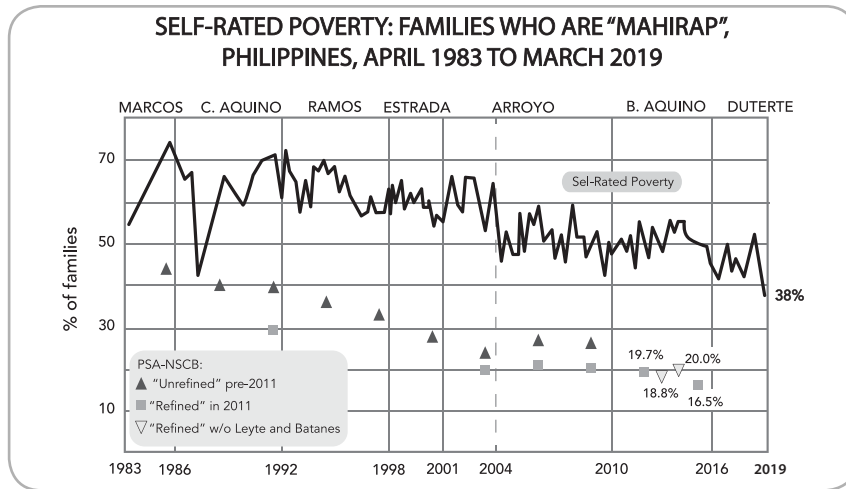
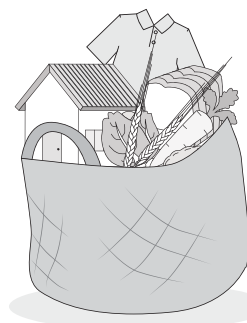


Figure 1.3. Survey on the self-rated poverty of Filipino families (ABS-CBN News, 2019).

## B. Study the needs of a large group of people

### Monthly Consumer Basket of an Average Filipino Family



ITEM	AMOUNT (PHILIPPINE PESO)
<b>FOOD AND NON-ALCOHOLIC BEVERAGES</b>	<b>3,834</b>
Rice	959
Meat	625
Fish	574
Vegetables	260
* Non-alcoholic Beverages	288
<b>ALCOHOLIC BEVERAGES AND TOBACCO</b>	<b>158</b>
Alcoholic Beverages	65
Tobacco	93
<b>NON-FOOD</b>	<b>6,008</b>
<b>CLOTHING AND FOOTWEAR</b>	<b>293</b>
<b>HOUSING, WATER, ELECTRICITY, GAS &amp; OTHER FUELS</b>	<b>2,204</b>
Actual Rentals for Housing	1,288
Electricity, Gas & Other Fuels	744
<b>FURNISHINGS, HH EQUIPMENT AND ROUTINE MAINTENANCE</b>	<b>295</b>

Figure 1.4. Basic necessities list of an Average Filipino Family according to a survey by the National Economic and Development Authority (NEDA, 2018).

# LESSON 1

## C. Evaluate the demands of a large group of people



Figure 1.5. Top 20 commonly consumed food products among Filipino households according to the Food and Nutrition Research Institute of the Department of Science and Technology (Gavilan, 2016).

## D. Understand the effect of an event to a large group of people

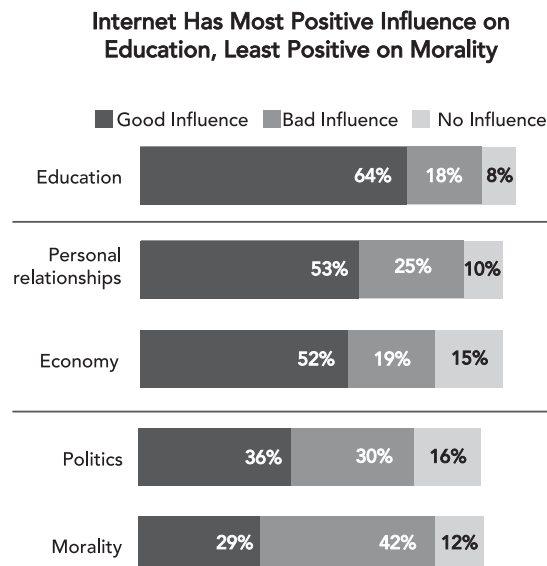


Figure 1.6. Effects of internet on different factors in emerging and developing nations (Pew Research Center, 2015).

# LESSON 1

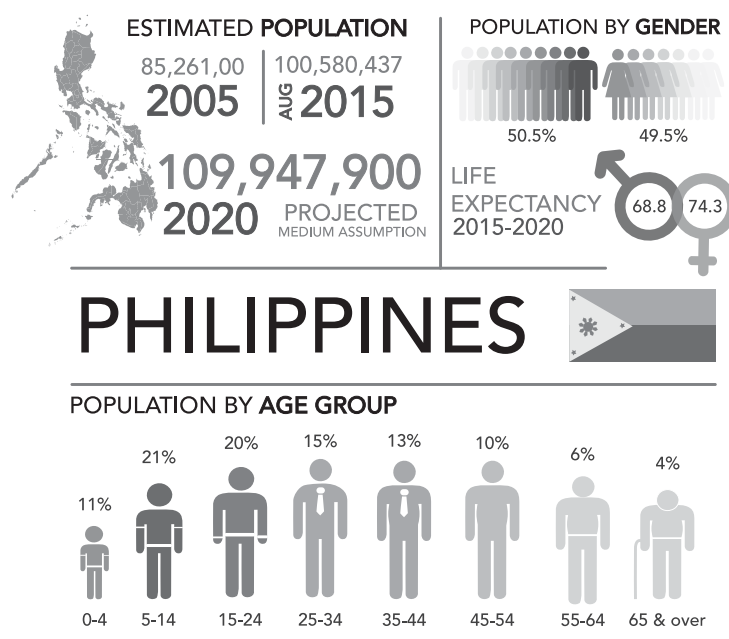


Figure 1.7. Population of the Philippines (DOH, 2016).

A large group of people and various information about them and/or the product they used or services they rendered are involved in a survey.

This is when the concept of sample and population comes in. A **population** is the total number of people that you can survey. A **sample** is a specific portion of the population. It is used

to represent your population. Therefore, a survey is a quick and easy way to know people more by collecting information from a sample.

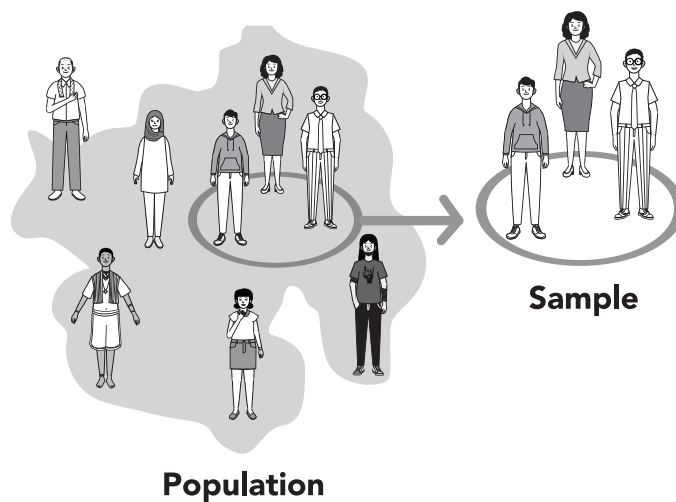


Figure 1.8. Sample and population in surveys.

## LESSON 1

---

To make sure that you are off to a good start for your survey, you must have the right questions. You must remember that the right questions give answers that are reliable and valid to what we want to know. Asking the wrong question can lead you to more complications.

So, how do you know if you are asking the right questions? Here is a quick guide:

1. Questions should be easily understood by the people you are asking (called respondents). An adult can answer a complex question (e.g. How would you estimate the circumference of these two balloons?) while a child can only answer simpler ones (e.g. Is this balloon smaller or bigger than the other balloon?)

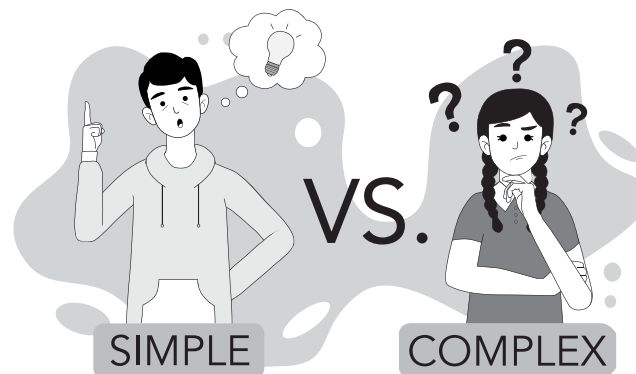


Figure 1.9. Simple and complex questions.

2. Questions should be answerable by the respondent. Avoid asking questions that are too personal or unethical. At the same time, do not require difficult calculations from your respondent.



Figure 1.10. Ethical vs unethical questions.

## LESSON 1

3. Questions should be bias-free, which means that it should not favor any person, group, or idea. The respondent should have a choice to give his/her honest opinion on a matter.
4. Questions should not be a continuation of each other. The respondents should be able to answer the questions without looking at the ones they already answered.



Figure 1.11. Biased vs unbiased questions.

Now that you already know what a good question is, you can start choosing the type of question you want to ask to your respondent. If you want your respondent to speak his/her mind without any limitations, then you can prepare **open-ended questions**. This type of question can help you learn more about your topic.

1. Tell us what you know about the Philippines.
2. Describe what you do on a typical day.
3. Tell us about your favorite thing to do with family. What does your family not like to do at all?
4. What concerns do you have about making changes?
5. What do you think are the advantages and disadvantages of online learning?



## LESSON 1

---

If you want your respondent to choose from a set of possible answers (choices), then **closed-ended questions** are perfect for your study/research. In this type of question, you can ask them to give a rating (e.g. Likert scale), give estimations or rankings (e.g. numerical ranges), or choose the best answer from unordered choices (e.g. multiple choice).



*Figure 1.12. Examples of closed-ended questions.*



## LESSON 1

# SHARPENING YOUR SKILLS

---

I. **Directions:** On a separate sheet of paper, write **TRUE** if the statement is correct. If not, write **FALSE**.

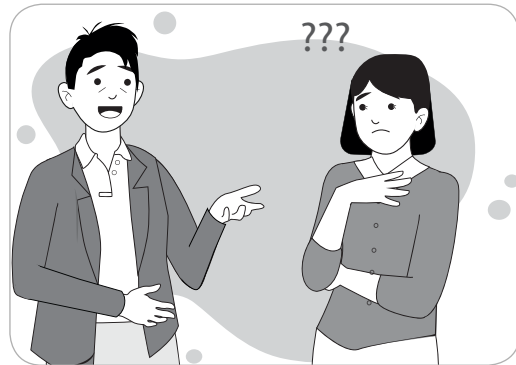
- \_\_\_\_\_ 1. A survey is a tool to hide data in research.
- \_\_\_\_\_ 2. A survey can know the characteristics of a large group of people.
- \_\_\_\_\_ 3. A survey can only study the needs of a large group of people.
- \_\_\_\_\_ 4. A survey can understand the impact of an event to a large group of people.
- \_\_\_\_\_ 5. A population is the minimum number of people who can answer survey questions.
- \_\_\_\_\_ 6. A sample is a specific portion of the population.
- \_\_\_\_\_ 7. Questions should be easily understood only by the researcher.
- \_\_\_\_\_ 8. Questions should be answerable by the respondent.
- \_\_\_\_\_ 9. Closed-ended questions can help you learn more about your topic.
- \_\_\_\_\_ 10. If you want your respondent to choose from a set of possible answers (choices), then open-ended questions should be asked.

## LESSON 1

---

Errors are unavoidable when conducting a survey. No matter how successful your survey is, there are still possibilities that you will commit minor, or even major, errors. To avoid some mistakes, these are what you need to remember:

1. Avoid leading your respondents to specific answers. It's a common mistake among interviewers when they try to interpret their respondent's answer for them. It suggests an answer that is based on your understanding, and not theirs. Respondents, too, would agree to your interpretation to avoid delays.



2. Avoid giving your expected answer to your respondents. This can lead the respondent to give an answer that you want, and not a reflection of his/her choice.



3. Remind your respondents to give answers based on their regular routine. Some respondents may feel too special in participating in a survey which can lead to false responses or improvements to make them better about themselves.



**II. Directions:** The following survey questions are wrong. Why are these considered incorrect? Write your explanations on a separate sheet of paper.

1. How short was your classmate?
2. Where do you enjoy drinking orange juice?
3. How happy or unhappy are you with the assignments and activities of your current job?
4. Do you always eat breakfast? (Yes/No)
5. What was the state of the cleanliness of the room?



## LESSON 1

# TREADING THE ROAD TO MASTERY

---

**Directions:** Write your answers on a separate sheet of paper.

1. List five (5) things you would like to know about your community (e.g. the number of male adults who are 18-60 years old; the number of children who are 2 to 5 years old).
2. Based on each of your answers above, what is the best question that you can ask to people in your community? Give one question for each item you wrote in #1.
3. Using social media, talk to ten (10) families in your community and ask the questions you wrote. Show the results.
4. Based on the results of your survey, what can you say about your community? Explain.



# HOW DOES THE ENVIRONMENT AFFECT THE HEALTH CONDITION OF MY FAMILY AND MY COMMUNITY?

At the end of this lesson, you will be able to:



identify the causes of the health problems in the environment (LS2SC-AS-PSC-LE/AE-LJHS/AJHS-1.12); and



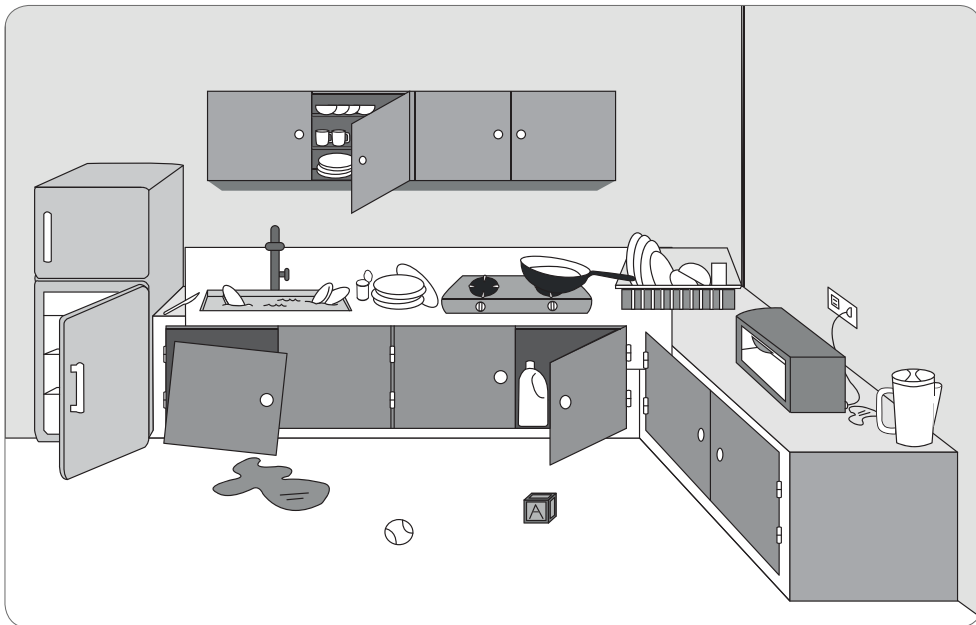
explain how the causes lead to health problems in a community (LS1CS/EN-L-PSA-BL/LE/AE/LJHS-5.1.6).



## LESSON 2

# TRYING THIS OUT

1. You have found a house for your family with affordable rent.
2. Once you entered the house, you saw the kitchen below.
3. Identify at least ten (10) dangerous (or hazardous) parts of the kitchen in the picture (label them from A to J).



4. What will happen if some of your family members are exposed to the said dangerous items? Complete the table below by writing your answer on a separate sheet of paper.

IT IS DANGEROUS BECAUSE...	
a.	f.
b.	g.
c.	h.
d.	i.
e.	j.



## LESSON 2

# UNDERSTANDING WHAT YOU DID

In the previous activity, you were able to identify the possible danger that the kitchen tools and equipment will do to you. It is because you have the instinct of determining which are safer to use.

On the other hand, you must also stay vigilant of the various threats lurking around your environment. These issues will surely have negative effects to your health and well-being. According to the World Health Organization (WHO), there are several things that affect the human health condition and they are called determinants of health. The following are the most common determinants:

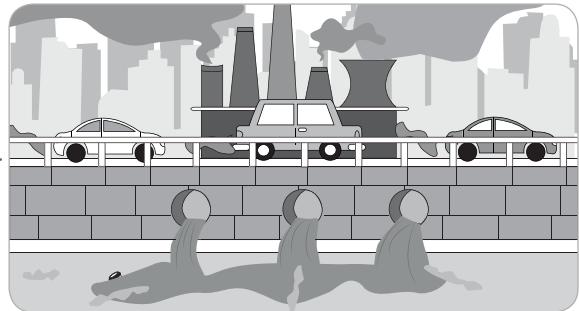
1. **Social and economic environment** (e.g. income, social status, social support, education, access to health service)

*Figure 2.1. Social and economic environment.*



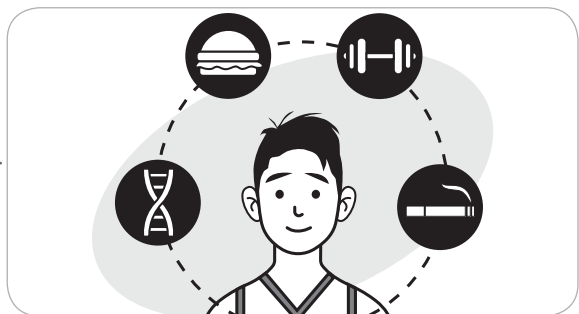
2. **Physical environment** (e.g. safe water, clean air, healthy workplace, safe house)

*Figure 2.2. Physical environment.*



3. **Individual characteristics and behavior** (genetics, eating habits, exercise routines, vices)

*Figure 2.3. Individual characteristics and behavior.*







## LESSON 2

# SHARPENING YOUR SKILLS

- I. **Directions:** Observe your environment. Complete the table below by describing an example of each determinant of health present in your community. Conduct an online interview with people who are directly experiencing these examples and ask how it affects their health. Write your answers on a separate sheet of paper.

DETERMINANT	EXAMPLE IN MY COMMUNITY	EFFECT/S
1. Social/ Economic		
2. Physical		
3. Individual Characteristic/ Behavior		

The determinants of health dictate your present and future health condition. WHO also pointed out specific areas where you can clearly see the effects (called evidences).

### 1. Transport



- accidents (motor vehicles, bicycles, pedestrians)
- pollution from burning fossil fuels
- climate change
- loss of land

### 2. Food Safety



- microorganisms (salmonella, campylobacter, E. Coli)
- viruses (hepatitis A) and parasites (trichomonosis)
- naturally-occurring toxins (mycotoxins, biotoxins, glycosides)
- unconventional agents (bovine spongiform encephalopathy)
- metals such as lead and mercury

### 3. Agriculture



- tobacco farming
- fisheries – biotoxins, pollution, chemical use, wastewater
- forestry – vector-borne diseases (heterobasidion annosum, phytophthora ramorum)
- livestock use – vector-borne diseases (anthrax, leptospirosis, listeriosis, ringworm, salmonella)
- pesticide usage

### 4. Eating Habits (Diet)



- lack of fruit and vegetable consumption
- total, saturated, and polyunsaturated fat, carbohydrate and sugar consumption
- alcohol consumption
- micronutrient deficiency

## 5. Waste



- transmission of agents of infectious disease from human and animal wastes
- exposure to toxic chemicals (industrial wastes)
- exposure to radioactive wastes
- exposure to healthcare wastes
- exposure to solid wastes and involvement in informal waste recycling

**II. Directions:** Observe your environment. Complete the table below by describing an example of each evidence of health determinants present in your community. Interview people (on-line, video-conferencing or mobile) who are directly experiencing these examples and ask how it affects their over-all health. Write your answers on a separate sheet of paper.

EVIDENCE	EXAMPLE IN MY COMMUNITY	EFFECT/S
1. Transport		
2. Food safety		
3. Agriculture		
4. Eating Habits (Diet)		
5. Waste		



## LESSON 2

# TREADING THE ROAD TO MASTERY

You are asked by your community leader to do a survey on the following:

1. Top three (3) main health problems of families in the community
2. The causes/s of the health problems of families in the community

Give two (2) possible questions for each information that your leader wants to know. You will be expected to ask these questions to the families in your community.

MY LEADER WANTS TO KNOW...	I WILL ASK EACH FAMILY...
1. The top three (3) main health problems of families in the community	Question 1:
	Question 2:
2. The causes/ of the health problems of families in the community	Question 1:
	Question 2:

Using social media, talk to ten (10) families in your community and ask the questions you wrote. Write the results on a separate sheet of paper.

Based on the results, what can you say about your community? **Write your explanation on a separate sheet of paper.**



# HOW CAN I HELP IN SOLVING THE HEALTH PROBLEMS OF THE COMMUNITY?

At the end of this lesson, you will be able to:



identify the health problems in the community (LS2SC-AS-PSC-LE/AE-LJHS/AJHS-1.12);



propose solutions to the health problems of the community (LS2SC-AS-PSC-LE/AR/LJHS/AJHS-1.13, LS2SC-AS-PSC-LE/AR/LJHS/AJHS-1.13); and



suggest acceptable actions to solve the health problems of the community (LS2SC-AS-PSC-LE/AE/LJHS-1.14).



## LESSON 3

# TRYING THIS OUT

1. A farmer brought a snake, hen, and a sack of corn from the market.
2. On his way home, the farmer needs to bring the snake, hen, and sack of corn on a small boat to cross a river.



3. The small boat can only carry the farmer and only one item. So, he needs to choose just one from what he bought (the snake, hen, or sack of corn).
4. Aside from the small boat and the wide river, the farmer has other problems: if he stays on the same side of the river, the snake would eat the hen or the hen would eat the sack of corn.
5. *Questions:*
  - a. How can you help the farmer bring all of the items he bought to the other side of the river unharmed or undamaged?
  - b. What were the things you did (or thought of) to solve the problem? Write a brief step-by-step solution.



## LESSON 3

# UNDERSTANDING WHAT YOU DID

Just like most people who tried helping the farmer cross the river, there had been too many attempts which ended up to be a disaster, where the hen was eaten by the snake or the corn was fed to the hen. So, you went back from scratch and tried other ways until you discovered that there is that one that you have not thought of yet.

Conscious or not, your mind is trained to continuously think of ways to solve a problem. You would imagine doing those things in your head, then either accept or reject them based on a possible ending.



Problem solving means having a purpose and directing yourself to a specific goal. In this process, you are not just trying to solve a problem. You are also finding and analyzing the problem to make sure that you can completely overcome all obstacles in the best way possible. Each problem you face is different in its own way when it comes to the solution you come up with. Some problems require a heavy load



of facts to be solved, while some require a creative strategy. Either way, there are **seven (7) general steps to problem solving.**

## STAGES IN THE PROBLEM SOLVING CYCLE

### 1. Identify the Problem

In this step, you will need to know what your problem is. As easy as it may sound, identifying the problem will determine whether you can solve what's needed to be solved or not because the rest of the 6 steps will depend on what you do here. The best questions to ask yourself in identifying the problem are:

---

*“What is the problem?”*  
*“Why is it a problem?”*  
*“Can it be solved?”*  
*“Why hasn't it been solved yet?”*

---

### 2. Define the Problem

In this step, you will need to give a definition to the problem you identified. These definitions can be as simple as those that you can find in the dictionary. But always remember that some words are homophones, having the same spelling or pronunciation but have different meanings and origins. Be very cautious not to give wrong definition to avoid misinterpretation and confusion.



For example, capital can either mean a place or value. If you want to know the capital city of the Philippines, the answer should Manila. But if you define capital as the wealth of the country, then the answer will be 2.8 million US dollars or 143 million pesos.



### 3. Formulate a Strategy

In this step, you will need to think of the possible ways to solve a problem. This depends on how you want to solve it. Some people would follow a logical step-by-step process in solving. On the other hand, some would rather follow a creative path. If you prefer doing both at the same time and still find good possible solutions, then you may do so.

### 4. Organize Information

In this step, you will need to prove the possibilities of your proposed solutions. Remember that the more statistical facts and concrete evidences your proposed solution has, the higher percentage of effectiveness is achieved.

### 5. Allocate Resources

In this step, ask yourself how important the problem is compared to your other existing problems. If you can prove that the problem needs to be solved immediately, then you can put all of your efforts and resources to finding its solution. If not, then set it as one of your less priorities.

### 6. Monitor

In this step, monitor the progress of the problem solving procedure. You can start asking yourself the following questions:

---

*“Am I working closer to finding a solution to the problem?”*

*“Are the proposed solutions considered the most effective in solving the problem?” “*

*Are there other possible solutions to the problem?”*

---

### 7. Evaluate

In this step, evaluate the results of the solution. The results will tell you whether the solution you have chosen are effective or not. These results can be immediate (e.g. scores from an exam, real-time responses) or take several stages before collecting (e.g. success of a series of medical treatments, long-term effects of diets).



## LESSON 3

# SHARPENING YOUR SKILLS

---

**Directions:** Josh is new in your neighborhood. He will start working soon in a nearby mall but does not know how to get there yet. Write your answer to each question on a separate sheet of paper.

- A. **Identify the Problem:** What is Josh's problem?
- B. **Define the Problem:** What are two (2) keywords in Josh's problem? Give the definition for each.
- C. **Formulate a Strategy:** What are three (3) possible solutions to Josh's problem? (keywords are enough)
- D. **Organize Information:** Discuss three (3) possible solutions to Josh's problem?
- E. **Allocate Resources:** Should Josh prioritize this problem before he starts working? Why? Why not?
- F. **Monitor:** Based on your own experience or knowledge, what can Josh observe if he tries all three solutions to his problem? Give possible results for each.
- G. **Evaluate:** What do you think is the most effective solution? Why?



## LESSON 3

# TREADING THE ROAD TO MASTERY

---

**Directions:** Using the steps in problem solving, help your community leader come up with a solution to the top health problem in your community. (clue: should you solve the effect or its cause?) Write your answer to each question on a separate sheet of paper.

1. **Identify the Problem:** What is the top health problem in your community?
2. **Define the Problem:** What is the definition (signs and symptoms) of the health problem?
3. **Formulate a Strategy:** What are two (2) possible solutions (medical treatment) to the problem?
4. **Organize Information:** Discuss each solution.
5. **Allocate Resources:** Is this problem important? Why?
6. **Monitor:** What are the advantages and disadvantages of each solution?
7. **Evaluate:** What do you think is the most effective solution? Why?



## MODULE 2

# DON'T FORGET



- A **survey** is a tool to gather data in research.
- A survey also has a specific purpose: to collect information from a large group of people.
- A **population** is the total number of people that can be interviewed in your survey.
- A **sample** is a specific portion of the population. It is used to represent your population.
- If you want your respondent to speak his/her mind without any limitations, then you can prepare open-ended questions. This type of question helps to give more information about the respondents and the topic.
- If you want your respondent to choose from a set of possible answers (choices), then closed-ended questions are best to use. In this type of question, you can ask them to give a rating (e.g. Likert scale), give estimations or rankings (e.g. numerical ranges), or choose the best answer from unordered choices (e.g. multiple choice).
- The following are the most common **determinants of health: 1) social and economic environment** (e.g. income, social status, social support, education, access





to health service); **2) physical environment** (e.g. safe water, clean air, healthy workplace, safe house); and **3) individual characteristics and behavior** (genetics, eating habits, exercise routines, vices)

- The following are the most common evidences of the determinants of health: 1) **Transport**; 2) **Food Safety**; 3) **Agriculture**; 4) **Eating Habits** (Diet); and 5) **Waste**.
- **Problem solving** is a purposeful, goal- directed action. It is a process that involves finding, analyzing, and solving those problems.
- **Stages in Problem Solving:**
  1. Identify the Problem
  2. Define the Problem
  3. Formulate a Strategy
  4. Organize Information
  5. Allocate Resources
  6. Monitoring
  7. Evaluation





## MODULE 2

# EXPLORE MORE

---

For additional activities related to the topics of this module, these resources may be helpful:

### **7 Tips for Good Survey Questions**

[https://www.youtube.com/watch?v=Iq\\_fhTuY1hw](https://www.youtube.com/watch?v=Iq_fhTuY1hw)

### **Health Games**

[http://www.sheppardsoftware.com/health/anatomy/digestion/digestion\\_tutorial.htm](http://www.sheppardsoftware.com/health/anatomy/digestion/digestion_tutorial.htm)

<https://medlineplus.gov/games.html>

### **Planning and Conducting Surveys**

<https://www.ck12.org/statistics/planning-and-conducting-surveys/lesson/Planning-and-Conducting-Surveys-ALG-I/>

### **Problem Solving Game Suggestions**

<https://www.stenhouse.com/sites/default/files/public/legacy/pdfs/8247ch10.pdf>

### **Problem Solving: Odd Squad (Interactive Game)**

<https://pbskids.org/games/problem-solving/>



## MODULE 2

# REACH THE TOP

---

You are almost done! Answer the following questions below on a separate sheet of paper.

I. Identify the part of the survey being asked in each number.

- \_\_\_\_\_ 1. lists clear and concise set of instructions that will be explained to the respondents at the beginning of the survey
- \_\_\_\_\_ 2. details about the respondent which can be helpful in the research (e.g. gender, age, religion)
- \_\_\_\_\_ 3. show the type of data to be collected
- \_\_\_\_\_ 4. represents the purpose of the survey
- \_\_\_\_\_ 5. shows a clear indication of the final part of the survey and contains a brief statement of thanks to the respondent

II. Write D if the statement refers to a determinant of health, and E if it refers to evidences of health.

- |                                   |                              |
|-----------------------------------|------------------------------|
| _____ 1. loss of land             | _____ 6. workplace           |
| _____ 2. pesticide usage          | _____ 7. climate change      |
| _____ 3. income                   | _____ 8. mycotoxins          |
| _____ 4. micronutrient deficiency | _____ 9. alcohol consumption |
| _____ 5. vices                    | _____ 10. clean air          |

III. Write T if the statement is true. If not, write F.

- \_\_\_\_\_ 1. In formulating a strategy, you need to think of possible problems.
- \_\_\_\_\_ 2. Monitoring means looking at the progress of a process.
- \_\_\_\_\_ 3. Defining a problem can be as simple as referring to a dictionary.
- \_\_\_\_\_ 4. One of the questions in identifying a problem is “Are there other possible solutions to the problem?”
- \_\_\_\_\_ 5. To evaluate the results of the solutions means to determine if the method was effective or not.

# ANSWER KEY

---

## PRE-ASSESSMENT

PAGE 2

- |       |       |
|-------|-------|
| 1. A  | 11. C |
| 2. B  | 12. D |
| 3. C  | 13. A |
| 4. D  | 14. B |
| 5. A  | 15. C |
| 6. B  |       |
| 7. C  |       |
| 8. D  |       |
| 9. A  |       |
| 10. B |       |

## LESSON 1: HOW DO I GET TO KNOW THE PEOPLE IN MY COMMUNITY?

### SHARPENING YOUR SKILLS

PAGE 16

#### ACTIVITY I

1. **FALSE** – a survey provides more information through valuable insights in a research
2. **TRUE** – a survey aims to know more about its subjects
3. **FALSE** – as mentioned in no.2, characteristics can also be studied
4. **FALSE** – a survey aims to discover the effect of an event to a large group of people
5. **FALSE** – a sample can be the minimum number of respondents to represent your population
6. **TRUE** – a sample should be in the same demographic as your population
7. **FALSE** – it should also be easily understood by the respondents
8. **TRUE** – it should be within the respondent's level of understanding and should not be too complex to avoid too much time being consumed
9. **TRUE** – it can provide insights that can only come from your respondents



# ANSWER KEY

---

10. **FALSE** – open-ended questions do not limit the respondent from giving his/her answer

## ACTIVITY II

1. The question implies a negative characteristic of the topic to the respondent. Questions should be neutral-sounding.
2. The question assumes that the respondent drinks orange juice. This forces the respondents to answer even if they might dislike orange juice. Surveys should have preliminary questions, if needed, to identify respondents who can participate in the research.
3. The question is talking about two topics at the same time: assignments and activities. The respondents might be happy with one topic and unhappy with the other. Such will confuse both the respondent and, during interpretation, the researcher. Questions should be simple, answerable, and independent from each other.
4. The question is too rigid because of the use of an absolute word (“always”). It forces the respondent to choose from two extreme answers (yes or no). Questions should have a more flexible set of choices that respondents can easily choose from.
5. The question is too complex that can be simplified. Questions should be simple for the respondent to understand and answer.

# ANSWER KEY

---

## TREADING THE ROAD TO MASTERY

PAGE 19

### Rubric for Questions (per topic):

CRITERION*	Exemplary (3)	Proficient (2)	Needs Improvement (1)
Question	The question is clear and precise, collectively allowing for detailed, unambiguous, and meaningful answers. Question is interpreted in the same way by respondents	The question sometimes is clear and precise, collectively allowing for meaningful answers. Question is interpreted in the same way by respondents	The question is difficult to understand, not precise, and ambiguous. Question is interpreted in a different way by respondents.
Grammar	The spelling, grammar, and punctuation are correct and accurate.	The spelling, grammar, and punctuation are clear enough.	The spelling, grammar, and punctuation are incorrect and inaccurate.

### Notes to the Teacher (for presenting results):

- Instruct the students to compile all results and present each in tally format (showing the total of each component in every topic).
- Encourage the students to be neat with their works. Avoid overlapping figures and/or writings.
- Ask the students to review the outcome of their survey. Guide them in analyzing whether the results were able to answer the questions for each of their chosen topics.

# ANSWER KEY

---

## Rubric for Discussion of Results

CRITERION	Exemplary (2)	Proficient (1)
Support/ Evidence (x3)	Argument is clearly supported by accurate evidence considered credible by the audience; there is sufficient detail to support the main points of the argument	Some evidence is provided, but information is not fully explained; important pieces of evidence have not been included; some data are relevant or credible but inaccurate
Clarity/ Conciseness (x2)	Sentences flow smoothly, are structurally correct, and convey the intended meaning; no wordiness	The majority of ideas expressed are awkward, incorrectly constructed, or wordy
Strategy/ Audience	Content, structure, and language of argument is geared to intended audience	Argument is missing a substantial portion of content required by audience

# ANSWER KEY

---

## LESSON II: HOW DOES THE ENVIRONMENT AFFECT THE HEALTH CONDITION OF MY FAMILY AND MY COMMUNITY?

### SHARPENING YOUR SKILLS

PAGE 23

#### ACTIVITY I AND ACTIVITY II

#### Rubric for Discussion of Results

CRITERION	Exemplary (2)	Proficient (1)
Support/ Evidence (x3)	Argument is clearly supported by accurate evidence considered credible by the audience; there is sufficient detail to support the main points of the argument	Some evidence is provided, but information is not fully explained; important pieces of evidence have not been included; some data are relevant or credible but inaccurate
Clarity/ Conciseness (x2)	Sentences flow smoothly, are structurally correct, and convey the intended meaning; no wordiness	The majority of ideas expressed are awkward, incorrectly constructed, or wordy
Strategy/ Audience	Content, structure, and language of argument is geared to intended audience	Argument is missing a substantial portion of content required by audience

# ANSWER KEY

---

## TREADING THE ROAD TO MASTERY

PAGE 26

### Rubric for Questions (per topic):

CRITERION*	Exemplary (3)	Proficient (2)	Needs Improvement (1)
Question	The question is clear and precise, collectively allowing for detailed, unambiguous, and meaningful answers. Question is interpreted in the same way by respondents	The question sometimes is clear and precise, collectively allowing for meaningful answers. Question is interpreted in the same way by respondents	The question is difficult to understand, not precise, and ambiguous. Question is interpreted in a different way by respondents.
Grammar	The spelling, grammar, and punctuation are correct and accurate.	The spelling, grammar, and punctuation are clear enough.	The spelling, grammar, and punctuation are incorrect and inaccurate.

### Notes to the Teacher (for presenting results):

- Instruct the students to compile all results and present each in tally format (showing the total of each component in every topic).
- Encourage the students to be neat with their works. Avoid overlapping figures and/or writings.
- Ask the students to review the outcome of their survey. Guide them in analyzing whether the results were able to answer the questions for each of their chosen topics.

# ANSWER KEY

---

## Rubric for Discussion of Results

CRITERION	Exemplary (2)	Proficient (1)
Support/ Evidence (x3)	Argument is clearly supported by accurate evidence considered credible by the audience; there is sufficient detail to support the main points of the argument	Some evidence is provided, but information is not fully explained; important pieces of evidence have not been included; some data are relevant or credible but inaccurate
Clarity/ Conciseness (x2)	Sentences flow smoothly, are structurally correct, and convey the intended meaning; no wordiness	The majority of ideas expressed are awkward, incorrectly constructed, or wordy
Strategy/ Audience	Content, structure, and language of argument is geared to intended audience	Argument is missing a substantial portion of content required by audience

# ANSWER KEY

---

## LESSON III: HOW CAN I HELP IN SOLVING THE HEALTH PROBLEMS IN OF THE COMMUNITY?

### SHARPENING YOUR SKILLS

PAGE 32

#### ACTIVITY I AND ACTIVITY II

#### Rubric for Discussion of Results

CRITERION	Exemplary (2)	Proficient (1)
Support/ Evidence (x3)	Argument is clearly supported by accurate evidence considered credible by the audience; there is sufficient detail to support the main points of the argument	Some evidence is provided, but information is not fully explained; important pieces of evidence have not been included; some data are relevant or credible but inaccurate
Clarity/ Conciseness (x2)	Sentences flow smoothly, are structurally correct, and convey the intended meaning; no wordiness	The majority of ideas expressed are awkward, incorrectly constructed, or wordy
Strategy/ Audience	Content, structure, and language of argument is geared to intended audience	Argument is missing a substantial portion of content required by audience

## TREADING THE ROAD TO MASTERY

PAGE 33

### Notes to the Teacher (for presenting results):

- Instruct the students to compile all results and present each in tally format (showing the total of each component in every topic).
- Encourage the students to be neat with their works. Avoid overlapping figures and/or writings.
- Ask the students to review the outcome of their survey. Guide them in analyzing whether the results were able to answer the questions for each of their chosen topics.

# ANSWER KEY

---

## Rubric for Discussion of Results

CRITERION	Exemplary (2)	Proficient (1)
Support/ Evidence (x3)	Argument is clearly supported by accurate evidence considered credible by the audience; there is sufficient detail to support the main points of the argument	Some evidence is provided, but information is not fully explained; important pieces of evidence have not been included; some data are relevant or credible but inaccurate
Clarity/ Conciseness (x2)	Sentences flow smoothly, are structurally correct, and convey the intended meaning; no wordiness	The majority of ideas expressed are awkward, incorrectly constructed, or wordy
Strategy/ Audience	Content, structure, and language of argument is geared to intended audience	Argument is missing a substantial portion of content required by audience



# ANSWER KEY

---

## REACH THE TOP ACTIVITY I

PAGE 37

1. Instructions
2. Demographics
3. Introduction
4. Title
5. Closing statement

## ACTIVITY II

1. E
2. E
3. D
4. E
5. D
6. D
7. E
8. E
9. E
10. D

## ACTIVITY III

1. F
2. T
3. T
4. F
5. T

# GLOSSARY

---

Community	a group of people living in the same place or having a particular characteristic in common
Environment	the surroundings or conditions in which a person, animal, or plant lives or operates
Error	a mistake
Health	the state of being free from illness or injury
Interview	a meeting of people face to face, especially for consultation
Pollution	the presence or introduction of a substance or thing that has harmful or poisonous effects
Poverty	the state of being extremely poor
Problem	a matter or situation regarded as unwelcome or harmful
Question	a sentence, worded or expressed, so as to get information
Solution	a means of solving a problem or dealing with a difficult situation

# REFERENCES

---

- Department of Health. 2016. Population. Accessed 23 August 2019. <https://www.doh.gov.ph/population>
- Denut, Dirk. 2011. "Problem Solving." Brady, When Performance Matters Most. Lean Enterprise Institute.
- European Council. n.d. The Handbook of Recommended Practices for Questionnaire. Accessed August 23, <https://ec.europa.eu/eurostat/documents/64157/4374310/13-Handbook-recommended-practices-questionnaire-development-and-testing-methods-2005.pdf/52bd85c2-2dc5-44ad-8f5d-0c6ccb2c55a0>.
- Glasow, P. 2005. "Fundamentals of Survey Research Methodology", n.d. Accessed August 23, 2019. [https://www.mitre.org/sites/default/files/pdf/05\\_0638.pdf](https://www.mitre.org/sites/default/files/pdf/05_0638.pdf).
- Health and Social Services. n.d. Factors affecting health. Accessed August 23, 2019. [https://hnhu.org/wp-content/uploads/Factors\\_Affecting\\_Health\\_web1.pdf](https://hnhu.org/wp-content/uploads/Factors_Affecting_Health_web1.pdf).
- National Programme in Technology Enhanced Learning. n.d. Problem Solving. Accessed August 23, 2019. <https://nptel.ac.in/courses/109101015/downloads/Lecture%20Notes/Lec14-Problem%20Solving.pdf>.
- Pew Research Center. 2015. Internet Seen as Positive Influence on Education but Negative on Morality in Emerging and Developing Nations. Accessed August 23, 2019. <https://www.pewresearch.org/global/2015/03/19/internet-seen-as->

# REFERENCES

---

positive-influence-on-education-but-negative-influence-on-morality-in-emerging-and-developing-nations/

Rappler. 2016. What are the top 20 food product consumed by Filipinos?. Accessed August 23, 2019. <https://www.rappler.com/move-ph/issues/hunger/88174-top-food-products-commonly-consumed-filipinos>

Rivas, R. 2019. Fact Check: NEDA didn't say family of 5 can live decently on P10,000 a month". Accessed 23 August 2019. <https://www.rappler.com/newsbreak/fact-check/204246-neda-filipino-family-5-members-monthly-budget>

Social Weather Services. 2019. First Quarter 2019 Social Weather Survey: Self-Rated Poverty falls to record-low 38%. Accessed August 23, 2019. [https://www.sws.org.ph/static/images/artclprimarypic/ART-20190618221931\\_prm.jpg?rescach=20200312133112](https://www.sws.org.ph/static/images/artclprimarypic/ART-20190618221931_prm.jpg?rescach=20200312133112)

Stanford University. n.d. Survey Research. Accessed August 23, 2019. [https://web.stanford.edu/dept/communication/faculty/krosnick/Survey\\_Research.pdf](https://web.stanford.edu/dept/communication/faculty/krosnick/Survey_Research.pdf).

World Health Organization. n.d. Accessed August 23, 2019. <https://www.who.int/hia/evidence/doh/en/>.



*The development and printing of this learning resource was made possible with the cooperation of Asia Pacific College. This is a component of the project “Better Life for Out-of-School Girls to Fight Against Poverty and Injustice in the Philippines” implemented by UNESCO Office, Jakarta in partnership with the Department of Education. This initiative received a generous financial support from Korea International Cooperation Agency (KOICA).*

For inquiries, please contact:

**Department of Education, Bureau of Learning Resources (DepEd BLR)**

Office Address : Ground Floor, Bonifacio Building, DepEd Complex,  
Meralco Avenue, Pasig City, Philippines 1600  
Telefax : +63-2-8631-1072; +63-2-8634-1054; +63-2-8631-4985  
Email Address : [blr.qad@deped.gov.ph](mailto:blr.qad@deped.gov.ph); [blr.lrp@deped.gov.ph](mailto:blr.lrp@deped.gov.ph)