

7

# Learning Activity Sheet For Science

Quarter 1

Lesson

5

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**Learning Activity Sheet for Science Grade 7**  
**Quarter 1: Lesson 5 (Week 5)**  
**S.Y. 2024-2025**

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## LEARNING ACTIVITY SHEET 1

<b>Learning Area:</b>	Science	<b>Quarter:</b>	1
<b>Lesson No.:</b>	5	<b>Date:</b>	
<b>Lesson Title/ Topic:</b>	<b>Hypothesis and Variables</b>		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

### I. Activity No. 1: Hypothesis and Variables (20 Minutes)

### II. Objective(s):

At the end of the lesson, the learners shall be able to:

- identify the different types of variables,
- make hypotheses based on the given scientific problem.

### III. Materials Needed: Reading Material, concept map

### IV. Instructions:

For this activity, the students will be grouped into four. Each group will have their assigned station.

#### o Experiment Procedure

There will be a situation posted in each station. The students will identify the, independent and dependent variables. The students will also write the hypotheses of each station on their science notebook. After three (3) minutes, they will exchange stations.

### Reading/Viewing Guide

#### STATION 1

Manuel is a farmer. He noticed that there are mice that were pests on their rice crops. Their harvest of rice crops decreases. The supply of rice affected their town. Which resulted, to a high price of rice. He uses three steps. First, he mixed 20g bait phosphorus material into the soil; second, he places a scarecrow on the farm and lastly, he planted peppermint in between the rice crops.

#### STATION 2

Mary's mother is a "plantita". During the pandemic, she planted tomatoes. Because of lack of space, some tomatoes were planted on the garden soil, while others were on the small pots. She observed that her plant growth and its fruits differ, although she planted them simultaneously. Because of lack of space, there were tomatoes planted on the garden, others were in small pots. The tomatoes planted on the garden receives enough amount of sunlight. The tomatoes planted on the pots were placed inside on their house. Both were watered and were given same amount of fertilizers.

### STATION 3

During the Brigada eskwela, teacher Mara is cleaning her room. She mops the floor and cleans the board and chairs. While cleaning, she noticed bubble gum stains on the wall. She wanted to remove the stain before she repainted the wall. She tried to use oil, water and ice to remove the bubble gum stain.

### STATION 4

Joseph loves to eat. One of his favorite food is a sandwich. He makes it with peanut butter, jams, ham, and even portions of margarine. His mother bought two packs of bread. As he was about to prepare his sandwich, he saw molds on the sides of the bread. He ran to his mom and told her about the molds. His mom told him to put a slice of bread inside an air- tight container, the other slice to put in a paper bag and the remaining slices, he left in the bread plastics.

- Complete the table below.

STATION	HYPOTHESIS	CONTROLLED	INDEPENDENT VARIABLE	DEPENDENT VARIABLE
1				
2				
3				
4				

- **Guide Questions**

The learners will be asked to read and answer the following questions:

*Q1. Based on the situations, what are the formulated hypotheses?*

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*Q2. What are the variables in Station 1? How about in Station 2? In Station 3? In Station 4?*

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## Problem Sets

Read and answer the following. Choose the letter of the correct answer.

A	B
	
20 ml cold water 5 g sugar 20 times stirring	20 ml cold water 5 g sugar 10 times stirring

- Which is the independent variable?
  - the amount of water
  - the amount of sugar
  - the times of stirring
  - the temperature of water
- Which is the dependent variable?
  - the dissolving time of sugar
  - the heating time of water
  - the number of granules left
  - the temperature of water
- Which are the controlled variables?
  - water temperature
  - amount of water
  - amount of sugar
  - dissolving time of sugar
  - stirring time
  - I, II, III, IV
  - II, II, IV
  - II, III, V
  - I, III, IV
- Mary wants to know at which temperature the salt dissolve faster in water. What is the dependent variable in the situation?
  - the level of water
  - the type of water
  - the source of water
  - the temperature of water
- How can a scientist know if his/her hypothesis is effective or not?
  - rely on wild guess
  - observe from others
  - test hypothesis thru testing
  - conclude based on gathered info from others

### Other related tasks

Answer the question below on your notebook. Complete the sentence below.

Three things I learned .....

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## V. Extended Practice:

Give two situations. Formulate hypothesis of the problem and identify the given variables.

## LEARNING ACTIVITY SHEET 2

<b>Learning Area:</b>	Science	<b>Quarter:</b>	1
<b>Lesson No.:</b>	5	<b>Date:</b>	
<b>Lesson Title/ Topic:</b>	<b>Experimentation</b>		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

### I. Activity No. 2: Experimentation (15 Minutes)

### II. Objective(s):

At the end of the lesson, the learners shall be able to:

- conduct an experiment to prove hypothesis; and
- determine the procedure in a given experiment.

### III. Materials Needed:

Reading Material, activity or science notebook

### IV. Instructions:

#### Experiment Procedure

For this activity, the students will be grouped into four. Each group will have their assigned station. On each station, there will be illustrations, text, and simple simulations to show the experimentation.

#### Reading/Viewing Guide

##### STATION 1 (Figure A)

Manuel is a farmer. He noticed that there were mice that were pests on their rice crops. Their harvest of rice crops decreases. The supply of rice affected their town. Which resulted in a high price of rice. He uses three steps. First, he mixed 20g bait phosphorus material into the soil; second, he placed a scarecrow on the farm and lastly, he planted peppermint in between the rice crops.



Figure A



Figure B

##### STATION 2 (Figure B)

Mary's mother is a "plantita". During the pandemic, she planted tomatoes. Because of lack of space, some tomatoes were planted on the garden soil, while others were on the small pots. She observed that her plant growth and its fruits differ, although she planted them simultaneously. Because of lack of space, there were tomatoes planted in the garden, others were in small pots. The tomatoes planted in the garden receive enough sunlight. The tomatoes planted on the pots were placed inside their house. Both were watered and were given the same amount of fertilizers.

### STATION 3 (Figure C)

During the Brigada Eskwela, teacher Mara is cleaning her room. She mops the floor and cleans the board and chairs. While cleaning, she noticed bubble gum stains on the wall. She wanted to remove the stain before she repainted the wall. She tried to use oil, water and ice to remove the bubble gum stain.

### STATION 4 (Figure D)

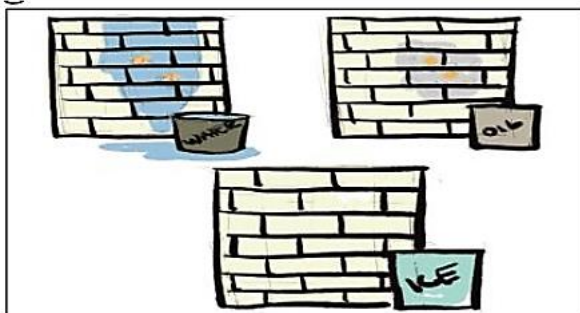


Figure C

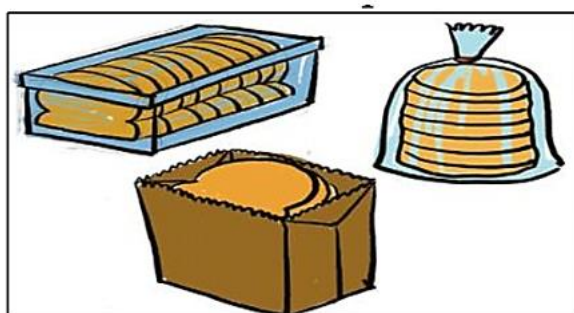


Figure D

Joseph loves to eat. One of his favorite foods is a sandwich. He makes it with peanut butter, jams, ham, and even portions of margarine. His mother bought two packs of bread. As he was about to prepare his sandwich, he saw molds on the sides of the bread. He ran to his mom and told her about the molds. His mom told him to put a slice of bread inside an air-tight container, the other slice to put in a paper bag and the remaining slices he left in the bread plastics.

#### ○ Guide Questions

1. How many experiments were done in each station?  
\_\_\_\_\_  
\_\_\_\_\_
2. Can you describe the procedure of the experiment on the first station? How about the 2nd? 3rd? and 4th station?  
\_\_\_\_\_  
\_\_\_\_\_
3. Which of the experiments in the first station worked? How did you say so? How about the 2nd station? 3rd station? 4th station?  
\_\_\_\_\_  
\_\_\_\_\_
4. How will you say that the experiment worked well?  
\_\_\_\_\_  
\_\_\_\_\_
5. Does the experiment show a fair testing? How did you say so?  
\_\_\_\_\_  
\_\_\_\_\_

### LEARNING ACTIVITY SHEET 3

<b>Learning Area:</b>	Science	<b>Quarter:</b>	1
<b>Lesson No.:</b>	5	<b>Date:</b>	
<b>Lesson Title/ Topic:</b>	<b>Drawing Conclusions</b>		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

#### I. Activity No. 3: Drawing Conclusions (15 Minutes)

#### II. Objectives:

At the end of the lesson, the learners shall be able to:

- Define what is conclusion; and
- Draw conclusions from a given scientific scenarios.

#### III. Materials Needed:

Reading Material posted on the wall (stations 1 to 4)

#### IV. Instructions:

##### o Experiment Procedure

- For this activity, the students will be grouped into four. Each group will have their assigned station. The students will draw their conclusions based on the different scenarios.

##### o Reading/Viewing Guide

##### **STATION 1 (Figure A)**

Manuel is a farmer. He noticed that there are mice that were pests on their rice crops. Their harvest of rice crops decreases. The supply of rice affected their town. Which resulted, to a high price of rice. He uses three steps. First, he mixed 20g bait phosphorus material into the soil; second, he places a scarecrow on the farm and lastly, he planted peppermint in between the rice crops.



**Figure A**



**Figure B**

##### **STATION 2 (Figure B)**

Mary's mother is a "plantita". During the pandemic, she planted tomatoes. Because of lack of space, some tomatoes were planted on the garden soil, while others were on the small pots. She observed that her plant growth and its fruits differ, although she planted them simultaneously. Because of lack of space, there were tomatoes planted on the garden, others were in small pots. The tomatoes planted on the garden receives enough



amount of sunlight. The tomatoes planted on the pots were placed inside on their house. Both were watered and were given same amount of fertilizers.

### STATION 3 (Figure C)

During the Brigada eskwela, teacher Mara is cleaning her room. She mops the floor and cleans the board and chairs. While cleaning, she noticed bubble gum stains on the wall. She wanted to remove the stain before she repainted the wall. She tried to use oil, water and ice to remove the bubble gum stain.

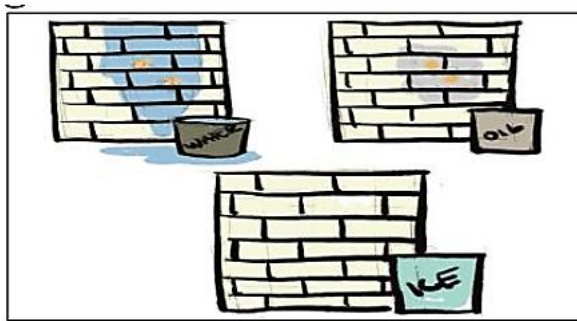


Figure C

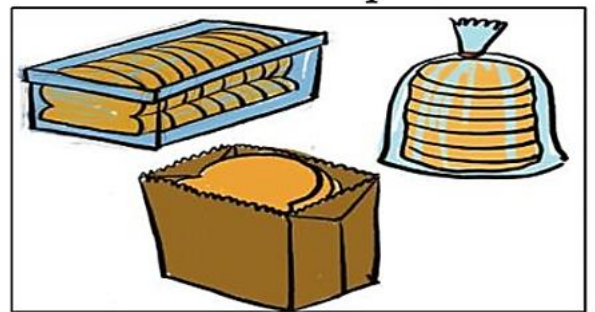


Figure D

### STATION 4 (Figure D)

Joseph loves to eat. One of his favorite food is a sandwich. He makes it with peanut butter, jams, ham, and even portions of margarine. His mother bought two packs of bread. As he was about to prepare his sandwich, he saw molds on the sides of the bread. He ran to his mom and told her about the molds. His mom told him to put a slice of bread inside an air- tight container, the other slice to put in a paper bag and the remaining slices, he left in the bread plastics.

#### ○ Guide Questions

1. What conclusion can you draw from the scenario in Station 1? How about in Station 2? Station 3? And Station 4?

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2. How can you draw conclusions?

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3. What is the importance of conclusion in science.

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○ **Problem Sets**

Complete the table below by supplying the conclusion based on the given information.

PROBLEM	HYPOTHESIS	VARIABLES	DATA GATHERED/ RESULTS	CONCLUSION
Are there more people infected with Covid 19 under General Community Quarantine or in Modified Enhanced Community Quarantine (MECQ)?	<b>Hypothesis No. 1.</b> More people were infected with Covid 19 under GCQ than MECQ?  <b>Hypothesis No. 2</b> Less people were infected with Covid 19 under GCQ than MECQ?	<b>Dependent Variable:</b> More or less people were infected  <b>Independent Variable:</b> GCQ and MECQ  <b>Constant Variable:</b> Specific area under GCQ and MECQ under study	200 cases of infected people were under GCQ in Area A. 150 cases of infected people were under MECQ in Area A. No reported cases for three days under GCQ but with several cases under MECQ. It was found out that there are more cases of infected people with Covid 19 in Area A with 200 cases under GCQ. There were about 50 cases less of people infected with Covid 19 under MECQ in Area A.	

○ **Other related tasks**

**Answer the question below on your notebook. Complete the sentence below.**

**Three** things I learned .....

**Two** things I wonder.....

**One** question I still have....

**V. Extended Practice:**

The students can give other examples of situations and they will draw conclusions from situations.

## LEARNING ACTIVITY SHEET 4

<b>Learning Area:</b>	Science	<b>Quarter:</b>	1
<b>Lesson No.:</b>	5	<b>Date:</b>	
<b>Lesson Title/ Topic:</b>	<b>Hypothesis and Variables</b>		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

### I. Activity No. 4: Hypothesis and Variables (15 Minutes)

This activity is based from Homework 1.d of Quarter 1, Week 5, Day 4 of the lesson exemplar.

### II. Objective(s): At the end of the lesson, the learners shall be able to:

- a. Define application.
- b. Apply the scientific method in investigating certain scenario.








### III. Materials Needed: 1 whole sheet of paper

### IV. Instructions:

#### ○ Experiment Procedure

1. Look for a partner.
2. Complete the given table below.

#### ○ Reading/Viewing Guide

My Scientific Method Chart				
<b>Observe</b> 	My favorite bananas easily turn brown when I remove the peelings. <div style="text-align: right;">  </div>			
<b>Ask a question</b> 	Be sure to write your problem in a question form. Problem: _____			
<b>Try to guess the solution</b> 	A. If _____, then _____ B. If _____, then _____ C. If _____, then _____			
<b>Experiment</b> 	List down the steps you will do. 1. _____ 2. _____ 3. _____ 4. _____ 5. _____			
<b>Record results</b> 	Banana Sample	2 minutes	5 minutes	10 minutes
	A			
	B			
	C			
<b>Write your conclusion</b> 	The important things I found out are _____ _____ The most effective solution to the problem is. _____ _____			

○ **Problem Sets**

1. What skill does a scientist show when he/she listens to the sounds that whales make?  
A. Making a hypothesis  
B. Making observations  
C. Interpreting data  
D. Drawing conclusion
2. Which question would be the best high-level scientific question?  
A. How many giraffes live in Africa?  
B. Who made the first microscope?  
C. How long ago did dinosaurs live on Earth?  
D. Does the amount of salt in water affect the temperature at which it boils?
3. What do you call the series of steps designed to help you solve problems and answer questions?  
A. Experiment  
B. Hypothesis  
C. Observation  
D. Scientific Method
4. In science, an educated guess is called a/an  
A. Conclusion  
B. Hypothesis  
C. Observation  
D. Question
5. When you decide whether or not the data supports the original hypothesis, you are  
A. Asking questions  
B. Drawing conclusions  
C. Making observations  
D. Forming a hypothesis
6. When a scientist shares her findings with other scientists, she is  
A. Experimenting  
B. Analyzing data  
C. Making a hypothesis  
D. Communicating results
7. The final part or a summary of reasonable inferences is/an  
A. Conclusion  
B. Hypothesis  
C. Question  
D. Controlled experiment
8. Anything that can change in an experiment is called\_\_\_\_\_.  
A. Experimenting  
B. Conclusion  
C. Hypothesis  
D. Variable
9. All good experiment should be \_\_\_\_\_.  
A. Explainable  
B. Questionable  
C. Testable  
D. Thoughtful
10. Which of the following does not belong to the group?  
A. Conclusion  
B. Experiment  
C. Hypothesis  
D. Plagiarism

**V. Extended Practice:**

The students can give other examples of situations which they can apply the scientific method.