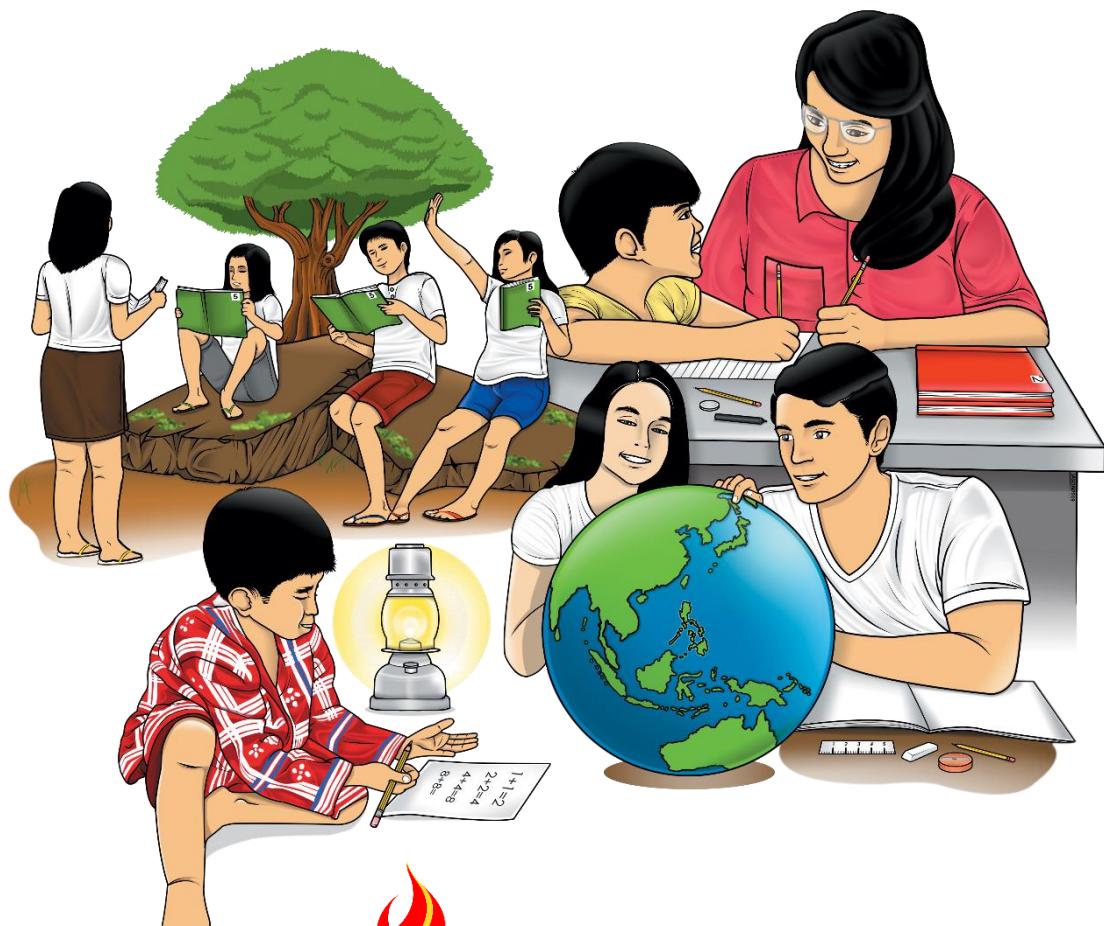


Science

Quarter 1 – Module 1

Lesson 2: Importance of Labels in Identifying Useful and Harmful Materials



GOVERNMENT PROPERTY
NOT FOR SALE



What I Need to Know

There are different materials found at home. These are important because they are used in our daily activities such as cooking tool, cleaning our houses, treating ailments, for personal hygiene, and many more. It is important to know their different properties so that we can identify whether a certain material is harmful or useful.

In this module, you will be able to explain the importance of labels in identifying useful and harmful materials.

Note: Please provide a separate sheet of paper for all your answers in this module.



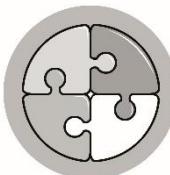
What I Know

Directions: Classify each household product according to its use. Write **P**, for personal care, **F** for food product, **M** for medicine, **C** for cleaning product and **PE** for pesticides.

1. bleach
2. canned goods
3. face powder
4. paracetamol
5. shampoo
6. insecticide spray
7. toothpaste
8. bread
9. cough syrup
10. dishwashing liquid

**Lesson
2**

Importance of Labels in Identifying Useful and Harmful Materials



What's In

Identify the following whether the material is useful or harmful. Write **U** for useful, or **H** for harmful.

1. drained batteries
2. old newspapers
3. fruit peelings
4. shattered glass
5. expired medicine



What's New

I. Directions: Study the pictures below and match the common product labels to its corresponding product.

Product Labels

A



B



<https://www.needpix.com/photo/21783/inflammable-signs-danger-warning-flammable-caution-hazardous-flammability-materials>

<https://www.needpix.com/photo/21773/safety-signs-corrosion-alkali-acids-corrosives-logo-hazard-warning>



<https://www.needpix.com/photo/1303936/recycle-sign-green-background-shadow>



https://commons.wikimedia.org/wiki/File:WHMIS_Class_D-1.svg



<https://www.vectorstock.com/royalty-free-vector/halal-sign-and-symbol-logo-vector-21843073>

Products

1. Plastic bottles
2. Muriatic Acid
3. Commercial Fertilizer
4. Alcohol
5. Food products

II. Directions: Write **True** if the statement is correct, or **False** if wrong.

1. Consumers must read product labels when buying grocery items.
2. Place fertilizers in containers and label them as poisonous.
3. Throw away plastic bottles after using them.
4. Labels are not important in classifying materials as to useful or harmful
5. Food allergen warnings are helpful for those who have allergies



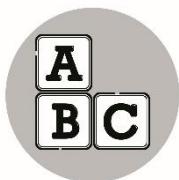
What is It

Various household products are found in our homes. These are composed of different materials with different properties. It is therefore important for consumers to read product labels. Through product labels, consumers become aware of whether the product is harmful or not. Useful materials are those that can be used for other purposes, can be recycled, can be dumped straight into a landfill and something can be recovered from it. Harmful materials, on the other hand, are toxic to us, can cause injury, cannot be dumped straight into a landfill, can pollute the environment, and take too much time to decompose. Expiration dates and hazardous signs are some of the most important elements in a product label. Some products are flammable such as paints and therefore must be stored away from open flames. Others are corrosive like muriatic acid so it is advisable to keep it away from children's reach. Pesticides, fertilizers, and muriatic acid are poisonous if not handled properly. Reading product labels can help you identify whether the product is useful or

harmful. These simple symbols in labels give ideas on how to use and store the product properly, and in order to help prevent accidents from happening and therefore save lives. The following are common signs in product labels which can help consumers decide whether the product is useful or harmful:

Symbol	Meaning	Example
Useful Product Labels		
 https://www.vectorstock.com/royalty-free-vector/halal-sign-and-symbol-logo-vector-21843073	<p>Halal</p> <p>-product is certified as safe for consumption (for Muslims)</p>	 https://commons.wikimedia.org/wiki/File:05349_ifPhilipine_foods_cusinesfvf_17.jpg
 https://commons.wikimedia.org/wiki/File:Ale_rgias.png	<p>Food Allergen Warning</p> <p>-warns consumers of ingredients in the product that may cause allergy</p>	<p>Ingredients: Granola (whole grain rolled oats, brown sugar, crisp rice (rice flour, grain rolled wheat, soybean oil, whole wheat flour, sodium bicarbonate, soy lecithin, rice crisp (whole grain brown rice, sugar, milled barley flour, salt), peanut butter & syrup, semi-sweet chocolate chips (sugar, chocolate liquor, cocoa butter, soy lecithin, sugar, palm kernel and palm oil, partially defatted peanut flour, lactose, dry whey, salt, vanilla (artificial flavor), oligofructose, polydextrose, glycerin, water, Conti sugar, calcium carbonate, salt, soybean oil, natural and artificial flavor, sucralose). MAY CONTAIN TRACES OF TREE NUTS.</p> <p>*Sugar Content (on 40 gram basis): Regular Peanut Butter Chocolate Chip Quaker Chewy Granola Bar</p> https://commons.wikimedia.org/wiki/File:US_Allergen_Information_Example.jpg
 https://www.needpix.com/photo/1303936/recycle-sign-green-background-shadow	<p>Recyclable</p> <p>-products can be recycled</p>	 https://commons.wikimedia.org/wiki/File:Recycling_codes_on_products.jpg
Symbol	Meaning	Example
Harmful Product Labels		
 https://www.needpix.com/photo/21783/inflammable-signs-danger-warning-flammable-caution-hazardous-flammability-materials	<p>Flammable</p> <p>-can easily catch fire</p>	 https://commons.wikimedia.org/wiki/Categorie:Kerosene#/media/File:Kerosene_bottle.jpg

 <p>https://commons.wikimedia.org/wiki/File:WHMIS_Class_D-1.svg</p>	<p>Poisonous</p> <p>-harmful to the body; may cause death</p>	 <p>https://pxhere.com/en/photo/598652</p>
 <p>https://www.needpix.com/photo/21773/safety-signs-corrosion-alkali-acids-corrosives-logo-hazard-warning</p>	<p>Corrosive</p> <p>- can cause severe burns</p>	 <p>https://commons.wikimedia.org/wiki/File:Battery_fluid_plastic_bottle.jpg</p>



What's More

I. Directions: Classify the different materials found in the word pool below as useful or harmful. Use the following table as a guide and answer the follow-up question.

Useful Material	Harmful Material

empty disinfectant bottle	old newspaper
candy wrappers	paint cans
vegetable scraps	broken glassware
fruit peelings	scratch paper

Explain how you classified the materials in column 2 as harmful products. Why is it important to read labels?

II. Directions: Copy and complete the table below. Identify whether the household material is useful or harmful, then determine the product label that would help you identify its category. The first one is done for you.

Household Material	Useful	Harmful	Product Label
1. Muriatic acid		/	Corrosive/poisonous
2. LPG			
3. paper cups			
4. empty plastic bottles			
5. insecticides			



What I Have Learned

How do you classify the materials at home? What is your basis in grouping the different materials? Are product labels important? Why?



What I Can Do

What do you think will happen to us if we will not read product labels? What harm can it bring to us?



Assessment

A. Put a check (/) mark if the statement is correct, an (X) mark if not.

1. Halal certified food can be consumed by Muslims.
2. Keep pesticides in areas away from children's reach.
3. All household materials are useful.
4. Muriatic acid can be labeled as corrosive and poisonous.
5. Recyclable materials such as empty mineral bottles are harmful.

B. Read each situation below and choose the best answer. Write the letter only.

1. Your aunt gave you chocolates as birthday presents. You were very excited to share it with your younger brother who loves chocolates but when you read the label, you noticed a food allergen warning. Some of these contain peanuts. What will you do?
 - A. I will still give him the chocolates and ignore the effects.
 - B. I will choose the ones without peanuts and give it to him.
 - C. He will not be given any chocolate because he has an allergy.
 - D. I will go to the grocery store and buy candies for my brother.
2. Father came home from work. Upon entering the gate, he disinfects his hands by using 70% alcohol. However, Mother was carrying a lighted candle and about to approach Father. What is the best thing to do?
 - A. Mother may bring a kerosene lamp instead of a candle.
 - B. Let her continue to approach Father with a lighted candle.
 - C. Tell Mother to put out the flame before going to the gate.
 - D. Bring more bottles of alcohol for Father.
3. Your best friend bought a cough syrup from the pharmacy. You noticed that the medicine is expired already. What are you going to say to her?
 - A. Continue to take medicine.
 - B. Do not take the cough syrup.
 - C. Mix it with new medicine.
 - D. Scold the pharmacist for giving expired medicine.
4. Mang Lito is a farmer. He used commercial pesticides in controlling pests in his rice field. Where can he store this poisonous product?
 - A. at the kitchen sink
 - B. on top of the dining table
 - C. in a closed and secured cabinet
 - D. under the table

5. Your Muslim friend visited your home. After some time, you decided to prepare food for lunch. What food products are you going to serve?

- A. meat products
- B. any available food
- C. Halal certified food
- D. dairy products



Additional Activities

Directions: Visit your kitchen and list down 10 household materials. Read each product labels and classify the materials as useful or harmful using the table below. The first one is done for you.

Household Material	Useful	Harmful
Expired medicine		/
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		



Answer Key

Assessment A		Assessment B		II.	
1. /	1. B	2. C	2. C/D	1. I.C	1. True
2. /	3. B	3. X	3. D	2. True	2. False
3. X	4. /	4. C	4. A	3. False	3. True
4. /	5. C	5. X	5. E	4. False	4. True
5. X				5. True	5. H
				6. P	6. M
				7. C	7. F
				8. X	8. P
				9. F	9. P
				10. C	10. H

(Answers may vary)

Additional Activities

Reading the product label can also help us classify materials. Expiration dates and hazardous signs are some of the most important elements in a product label. Harmful materials are toxic to us, can cause injury, cannot be dumped straight into a landfill, can pollute the environment and take too much time to decompose.

Useful Material	Harmful Material
Candy wrappers	Empty disinfectant bottle
Vegetable scraps	Paint cans
Fruit peelings	Broken glassware
Scratch paper	Old newspaper

What's More (I)

Household material	Useful	Harmful	Product Label (for harmful materials)	5. insecticides
2. LPG	/	/	corrosive	
3. scratch papers	/	/	flammable	
4. empty plastic bottles	/	/	recyclable	
5. insecticides	/	/	poisonous	

What's More (II)

If we do not read product labels we will be exposed to danger. For example, if we do not put proper label to poisonous products, these can cause great danger because toxic components from these products can kill humans.

What Can I Do:

Materials at home can be classified as useful and harmful. Product labels can help us identify which products are useful or harmful. Product labels are important because these can warn the consumers of the possible harm from a certain product.

What I Have Learned: