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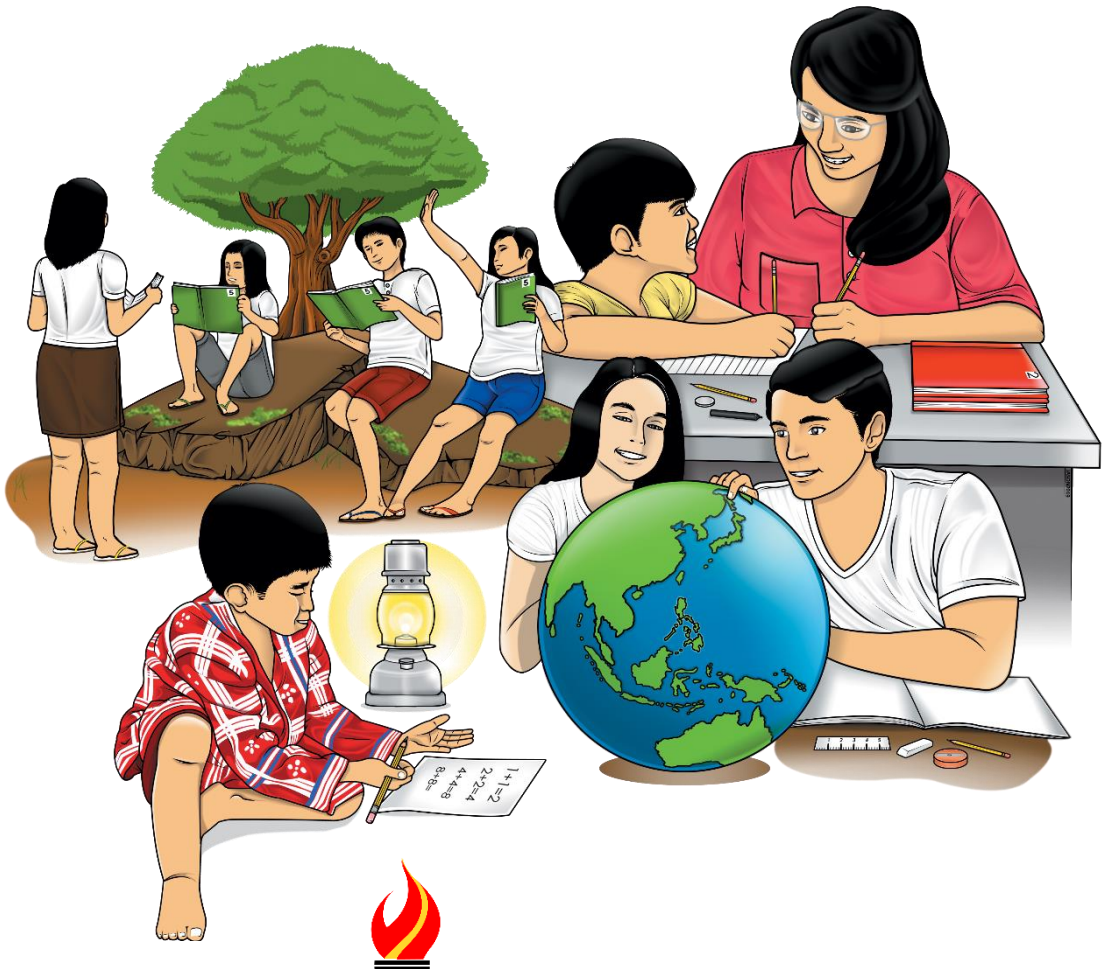
Science
Quarter 1 – Module 3:
"Mix and Match"



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Science
Quarter 1 – Module 3:
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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

What I Need to Know

Matter is always a changing state. The activities you will do in this module will help you describe and understand that matter undergo changes when exposed to certain conditions or when mixed with other materials.

In this module you will learn that properties of materials change when exposed to different temperatures. Materials may change its state and may also change its composition when heated or cooled.

This module will focus on:

- Lesson 1 – changes in the properties of materials when exposed to different temperatures;
- Lesson 2– describe what happens to the solid materials when mixed with other solid materials; and
- Lesson 3 – describe what happens to solid materials when mixed with other liquid materials.

After going through this module, you are expected to:

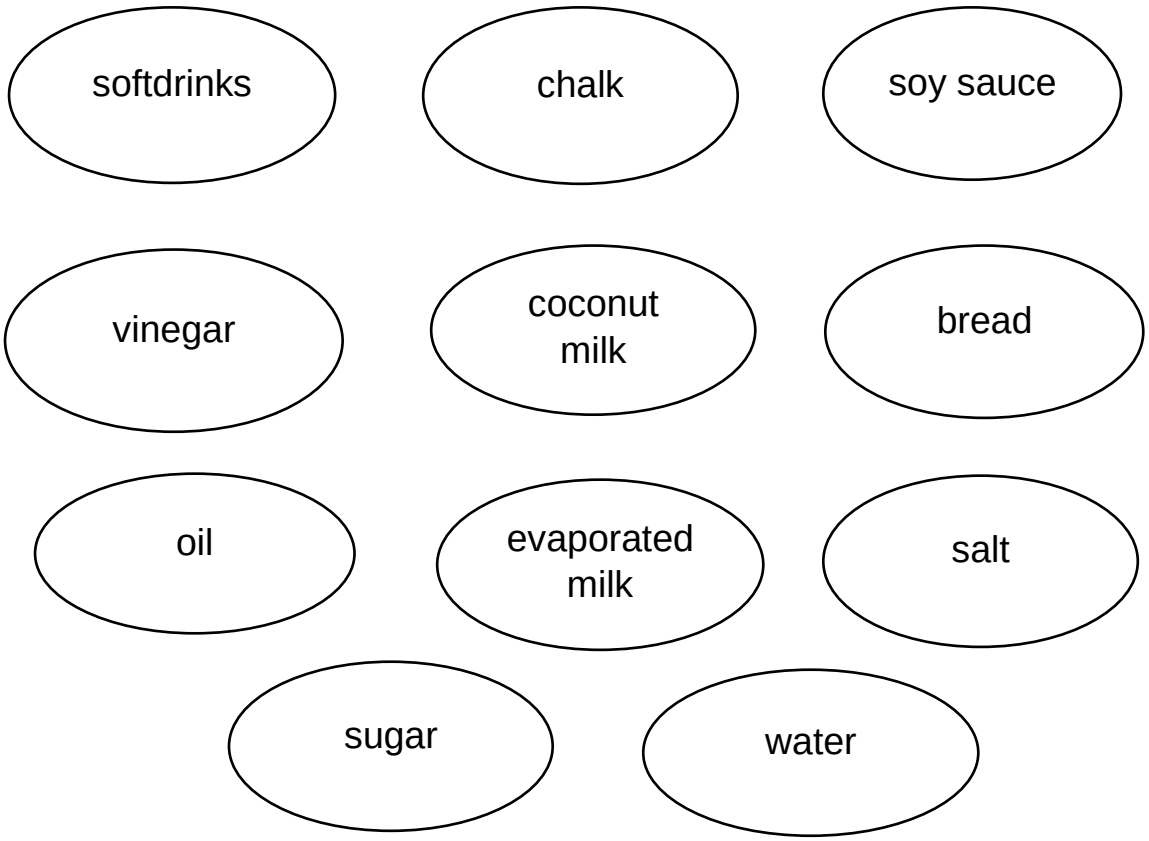
1. define heating and cooling;
2. describe what happens to the materials when heated and cooled;
3. describe what happens to solid materials when mixed with other solid materials;
4. describe what happens to solid materials when mixed with the liquid materials;
5. identify the changes in the properties of solid materials when mixed with other solid materials; and
6. identify the changes in the properties of solid materials when mixed with the liquid materials.

What I Know

A. Directions: Identify what changes will happen to the materials when exposed to certain conditions.

_____1. Ice placed on top of the table.
_____2. Oil is placed inside the cooler.
_____3. Butter is placed in a heated pan.
_____4. Water is placed inside the freezer.
_____5. Melted chocolate is placed inside the refrigerator.

B. Directions: Read each word in the circle. If the material is solid color it **red** if not color it **blue**. Write your answers in your Science notebook.



Nice start! Keep on moving!

Lesson 1 "Changes in the Properties of Materials when Exposed to Different Temperatures"

Have you noticed why cooking oil turns into solid during cold weather? Have you wondered why butter should always be kept in cool places like refrigerator or cooler? Today, you will perform different activities that will help you describe and identify what will happen to materials when they are exposed to different temperatures.

What's In

A. Directions: Draw a **heart** (♡) when the material involve a change in shape, **circle** (◯) when it changes its size and a **star** (☆) when it changes both the shape and size.

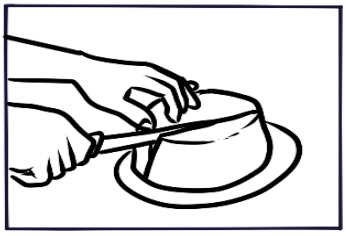
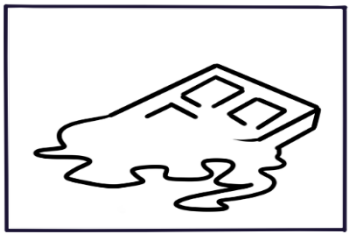
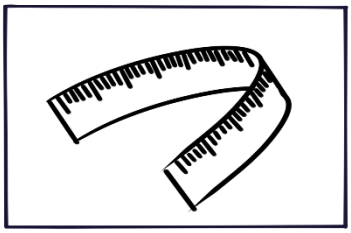
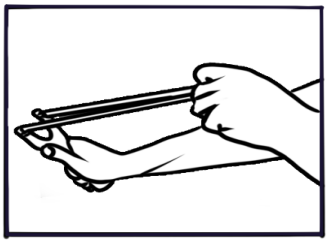
_____1. molding clay
_____2. folding clothes
_____3. cutting of wood
_____4. bending of wire
_____5. tearing of paper
_____6. hammering of chalk
_____7. cutting of string beans
_____8. stretching of rubber band
_____9. crumpling of plastic cups
_____10. bending the body of the dancer

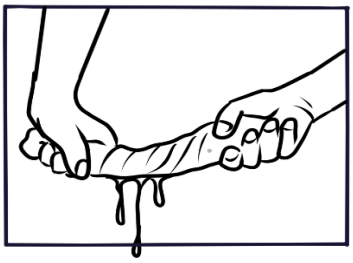
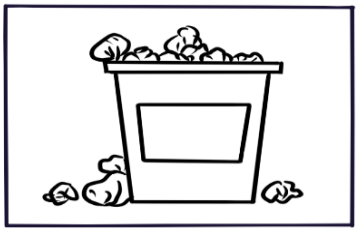
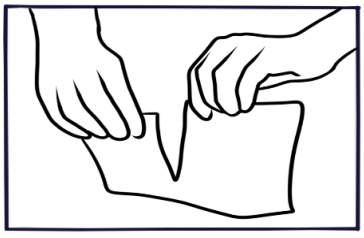
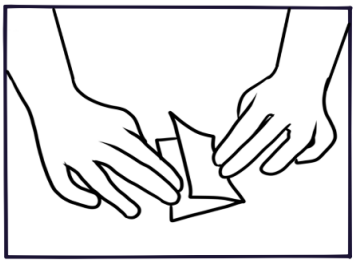
Amazing! You are doing great.

B. Directions: Using the pictures below, identify what actions should be done to change the size and shape of the given materials

in the pictures. Select your answers from the group of words found inside the box. Write your answers in your Science notebook.

pressing	cutting	stretching	folding	twisting
melting	bending	tearing	hammering	crumpling

Pictures	**Action done to change the size and shape of the objects**
1. 	
2. 	
3. 	
4. 	
5. 	

6. 	_____
7. 	_____
8. 	_____
9. 	_____
10. 	_____

Illustrated by: Kristal Grace C. Ilao

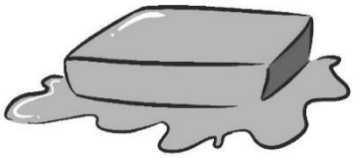
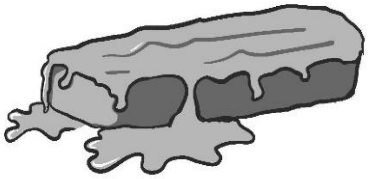
What's New

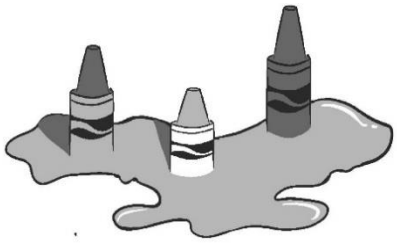
Directions: Perform the activity and answer the questions that follow. Write your answers in your Science notebook.

Activity 1: "It's getting Hot... It's getting Cold.... What will I turn Into?"

What to Do:

1. Observe carefully the pictures below then answer the following questions that follow.

Materials	**Changes in the Material**	
	When Heated	**When Cooled**
 melting butter / margarine		
 melting candle		
 melting chocolate		

 melting crayons		

Illustrated by: Kristal Grace C. Ilao

Guide Questions:

1. What happened to each material (crayon, chocolate bar, margarine / butter, and candle) when heated and cooled? Why?
2. Are there changes in the appearance of the materials?
3. What are the changes that took place in each material?

Great! You almost got it! Congratulations! You did well. This time, you will mix different liquids. Are you ready?

What is It

Points to Remember:

Properties of materials when exposed to different temperatures

- When materials are heated, they change in size, shape, form and texture. There is an increase in the temperature.
- When heated, they change from solid to liquid. The materials melt.
- When cooled, they change from liquid to solid**.** The materials return to its solid form again. There is a decrease in temperature.

What's More

Directions: Given the following materials study what will happen to these materials when heated or cooled. Underline the correct word/s that will best describe in each statement. Write your answers on your notebook.

- chocolate
- butter/margarine
- crayon

1. The crayon when heated (melted, hardened, remained the same).
2. The chocolate when heated (melted, hardened, remained the same).
3. The margarine when heated (melted, hardened, remained the same).
4. When the crayon was heated, there was a change in (size only, shape only, texture only, all forms).
5. When the chocolate was heated, there was a change in (size only, shape only, texture only, all forms).
6. When the butter/margarine was heated, there was a change in (size only, shape only, texture only, all forms).
7. When the crayon was cooled after it has melted, there was a change in (size only, shape only, texture only, all forms).
8. When the chocolate was cooled after it has melted, there was a change in (size only, shape only, texture only, all forms).
9. When the butter/margarine was cooled after it has melted, there was a change in (size only, shape only, texture only, all forms).
10. When chocolate, butter/margarine and crayon are heated there is a (physical change only, chemical change only, physical and chemical change).

That's better! Keep it up!

What I Have Learned

Directions: Choose the right word for the following statements. Answers can be repeated. Write your answers in your Science notebook.

size	liquid	shape	solid	texture
increases	decreases			

I learned that:

When materials are heated, they change in 1. _____, shape, form and texture. There is an increase in the 2. _____. When heated, they change from solid to 3. _____. The materials melt.

When 4. _____, they change from liquid to solid**.** The materials return to its solid form again. There is a 5. _____ in temperature.

MARVELOUS! You're really improving! Try some more!

What I Can Do

Directions: Read the situation and answer the questions briefly. Write your answer in your Science notebook.

Your father wants to prepare a coffee. If you are the one who will prepare it, what will you use to dissolve coffee powder and sugar faster? Will you use cold water or hot water? Why?

Assessment

A. Directions: Underline the appropriate word that will make the statement correct. Write your answers on your Science notebook.

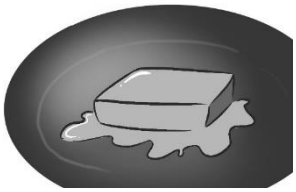
1. Water when placed inside the freezer will become (solid, liquid, gas).
2. Fat when placed on top of a hot pan (will change, will not change) in shape and size.
3. Melted crayon when cooled will become (soft, hard, gas).
4. The butter will (harden, melt, remain the same) when heated.
5. Soft drinks when placed inside the freezer will become (solid, liquid, gas).
6. Floor wax when placed inside the heated can will become (solid, liquid, gas).

B. Directions: Read each question carefully. Choose the letter of the best answer.

7. Mico heated the chocolate bar to make a chocolate syrup. Which of the following best describes what changes happened to the chocolate bar when heated? The chocolate bar changed its_____.
    a. size and shape
    b. taste and odor
    c. texture and odor
    d. odor and texture

8. What will you do to dissolve sugar faster in a cup?
    a. Use cold water.
    b. Use hot water.
    c. Add more water to the sugar.
    d. Add more sugar in the water.

9. The picture below shows a piece of butter in the frying pan. If the stove is turned on, the butter will change from _____,



Illustrated by: Kristal Grace C. Ilao

a. liquid to gas
b. gas to liquid
c. solid to liquid
d. liquid to solid

10. What change will happen in the properties of the water when you placed it inside the refrigerator? The water will change from _____.

a. gas to solid
b. gas to liquid
c. solid to liquid
d. liquid to solid

C. Directions: For item numbers 11-15. Below are the group of words related to your previous activities and lessons. Select the words that are related to the words written inside the box. Do this in your Science notebook.

softened melted hardened

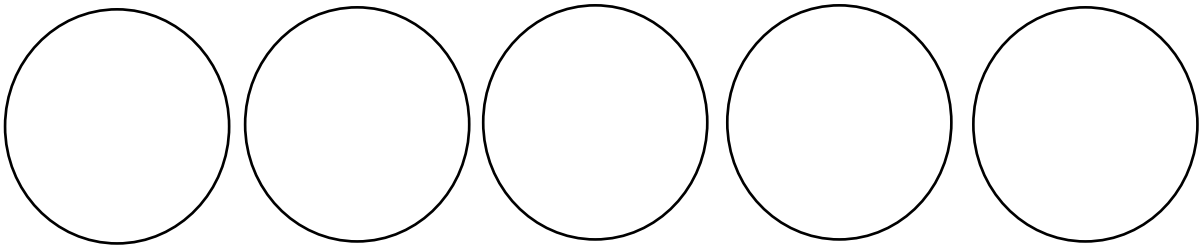
turned liquid turned solid

HOT	**COOLED**
11._____	14._____
12._____	15._____
13. _____	

CONGRATULATIONS! You outdid yourself today!

Additional Activities

1. Draw and describe briefly 5 situations which show that hot/boiling water dissolves solids faster than cold water.



Lesson 2 "What happens to solid materials when mixed with other solid materials?"

Have you eaten pansit for breakfast or snacks? What are the solid ingredients used to cook your favorite *pansit?* Can you identify them? What have you noticed after cooking them? Is there a change in the solid ingredients in terms of their appearance, texture, color, and taste after mixing them?

What's In

Directions: How many phases of matter do you see in each mixture? Shade the star under each number.

	One	Two
1. corn grits and rice	☆	☆

2. onion and vinegar

3. pebbles and sand

4. fruits and vegetables

5. soy sauce and garlic

Amazing! You are doing great.

What's New

Note to Parent/Guardian: Guide your children while doing the various activities in this module. Remind them to observe precautionary measures and to be careful in handling the materials while performing the activity**.**

To the Learner:

Directions: Perform the activity and answer the questions that follow. Write your answers in your Science notebook.

What you need:

- 1 pc. spoon
- 2 pcs. of mixing bowl/ any small plastic container
- 1 tablespoon of each of the following pairs of materials
- sand and pebbles
- instant coffee and creamer
- white sugar and iodized salt
- corn starch and creamer
- powdered detergent and rock salt
- rice grains and corn grits
- rock salt and pepper
- flour and baby powder
- paper clips and staple wire

What to do:

1. Prepare one tablespoon of each of the materials listed in the table.

2. Using the spoon, mix/combine the pairs of solid materials (listed in the table) in the mixing bowl or any plastic container.

3. After mixing/combining the materials, observe what happens. You may also touch/feel the resulting mixture.

4. Record your observations in the table below by checking the proper column.

Solid Materials	Can you still identify/distinguish each solid material in the mixture?		Did the resulting mixture look the same throughout?		Is there a change in the property of each solid material in the mixture?	
	Yes	No	Yes	No	Yes	No
1. sand and pebbles						
2. rice grains and corn grits						
3. instant coffee and creamer						
4.rock salt and black pepper						
5. white sugar and iodized salt						
6. corn starch and creamer						
7. paper clips and staple wire						
8. iodized salt and vetsin or MSG						
9.powdered detergent and rock salt						
10.flour and baby powder						

Guide Questions:

1. Which pair of materials can still be distinguished from their original phase after mixing/combining them?
2. Which pair of materials cannot be distinguished from the original phase after mixing/combining them?
3. Is there a change in the property of each solid material in the mixture?
4. What happens to the solid materials when mixed with other solid materials?
5. Compare and contrast the physical state of each solid material before and after it was mixed with other materials.

Great! You almost got it! Congratulations! You did well.

What is It

Points to Remember:

When two or more materials are combined, a **mixture** is formed. Mixed materials can be classified depending on the appearance of the resulting mixture.

When the solid material is mixed with other solid material, each of the combined/mixed materials can be easily identified/distinguished from each other. Such mixture is called **heterogeneous mixture.**

Some solid materials, when mixed with other solid materials cannot be distinguished from each other. If the resulting mixture mixed completely and looked the same throughout, such mixture is called **homogenous mixture.**

The properties of each solid material in the mixture do not change. The size, shape, color, of each solid materials remain the same even after mixing.

What's More

Activity 1: "Homogenous or Heterogeneous?"

Directions: Identify the following mixtures as homogenous or heterogeneous. Write **HM** for homogenous mixture and **HT** for heterogeneous mixture.

_____1. palay and pebbles

_____2. basket balls and soccer balls

_____3. corn hair and black human hair

_____4. stone and clay soil

_____5. petals and leaves

_____6. pepper and flour

_____7. monggo seeds and sitaw seeds

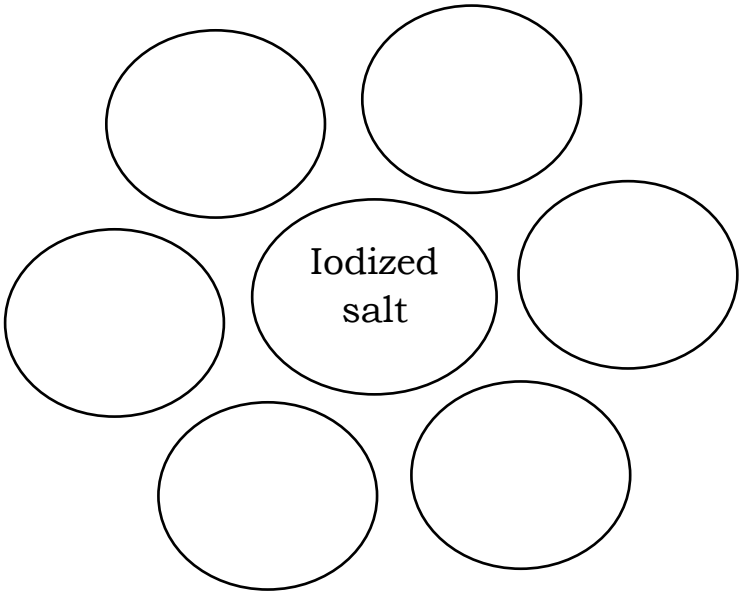
_____8. flour and powdered milk

_____9. thumbtacks and pins

_____10. rice grains and pebbles

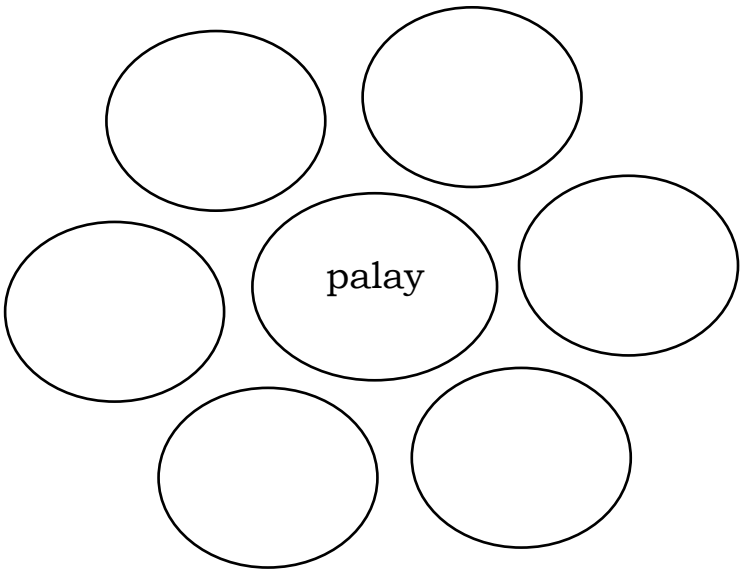
Activity 2: "Solid Materials and Iodized Salt to form Homogeneous Mixtures"

Directions: List down names of solid materials at the outside circles which will form homogeneous mixture when mixed with the solid material in the inner circle. Write your answers in your Science notebook.



Activity 3: "Solid Materials and Palay to form Heterogeneous Mixtures"

Directions: List down names of solid materials outside circles which will form heterogeneous mixture when mixed with the solid material in the inner circle. Write your answers in your science notebook.



Activity 4: "Solid to Solid Mixtures"

Directions: Check the correct column that will best describe when the solid materials are mixed together.

Solid Materials	Is there a change in the property of the solid materials?	
	Yes	**No**
sand and pebbles		
rice grain and corn grits		
milk and creamer		
rock salt and pepper		
white sugar and iodized salt		
corn starch and creamer		
iodized salt and vetsin or MSG		

That's better! Keep it up!

What I Have Learned

Directions: Choose the right word that will fit to the given statement. Answers can be repeated. Write your answers on your Science notebook.

mixture, the same, heterogeneous, homogeneous, change

I have learned that...

1. When two or more materials are mixed, a _____ is formed.

2. When solid materials are mixed with other solid materials, and the resulting mixture can be easily identified or distinguished. Such mixture is called_____ mixture.

3. Some solid materials when mixed with other solid materials cannot be distinguished from each other. The resulting mixture looked the same throughout, it is called _____mixture.

4. The properties of each solid materials in the mixture do not _____.

5. The size, shape and color of each solid material remain _____ even after mixing.

MARVELOUS! You're really improving! Try some more!

What I Can Do

Directions: Read the situation and answer the questions briefly.

You planned to make fruit salad for your dessert, after mixing all the solid ingredients, can you identify each of them? Why?

Assessment

A. Directions: Fill in the blank with the correct word that will make the statement complete. Write your answers in your Science notebook.

1. When two or more materials are combined, a mixture is _____.
2. Mixed materials can be _____ depending on the appearance of the resulting mixture.
3. When the solid material is mixed with other solid material, each of the combined/mixed materials can be easily _____ from each other.
4. Some solid materials, when mixed with other solid materials cannot be distinguished from each other. The resulting mixture mixed completely and looked _____ throughout, such mixture is called homogenous mixture.
5. The _____ of each solid material in the mixture do not change after mixing.

B. Directions: Identify whether each pair of solid materials is heterogeneous or homogeneous mixtures. Write your answers in your Science notebook.

_____1. keys and nails

_____2. rice grains and corn grits

_____3.cups and glasses

_____4. cups and saucers

_____5. spoon and fork

_____6. manila paper and cartolina

_____7. paper clips and staple wire

_____8. iodized salt and vetsin

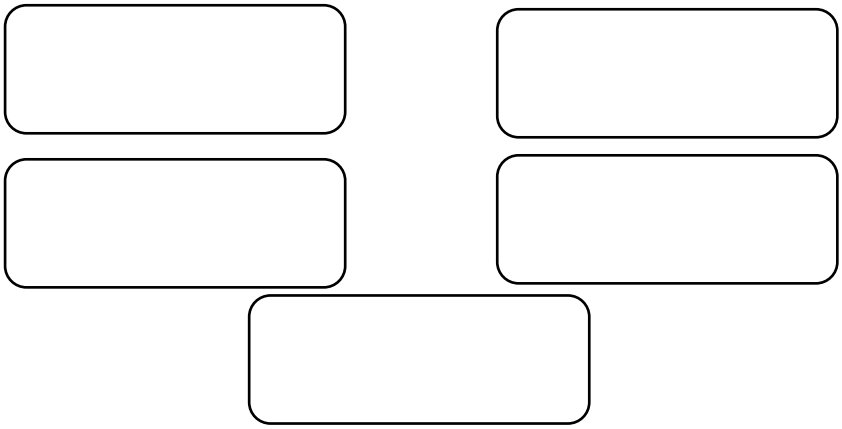
_____9. beads and pebbles

_____10. flour and baby powder

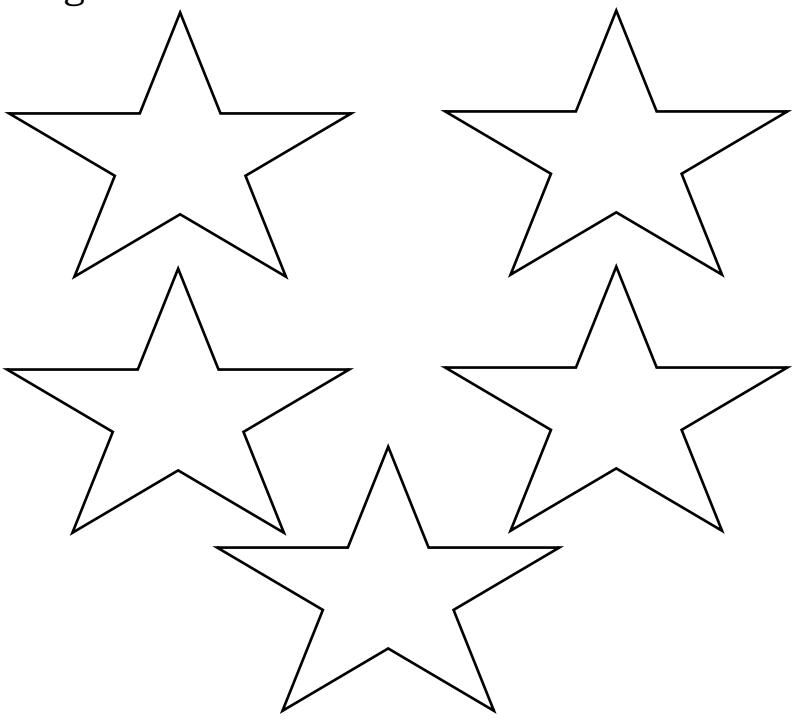
CONGRATULATIONS! You outdid yourself today!

Additional Activities

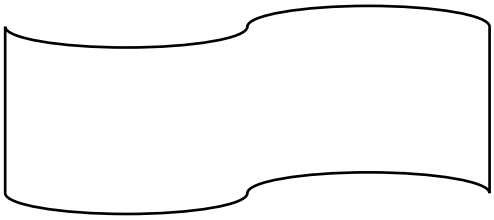
A. Directions: List down 5 pairs of solid materials which will form a homogeneous mixture.

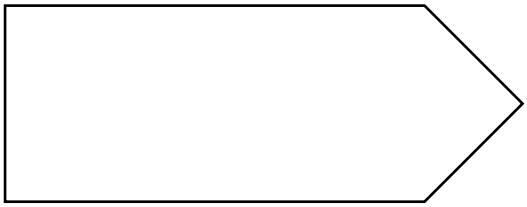


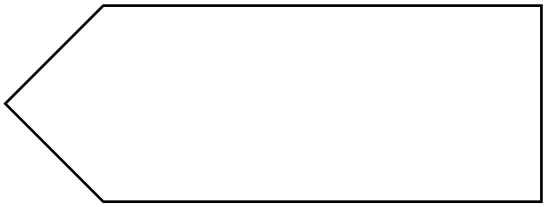
2. **Directions:** List down 5 pairs of solid materials which will form a heterogeneous mixture.



B. Directions: Draw pair of solid materials and describe the changes that will happen when they are mixed.







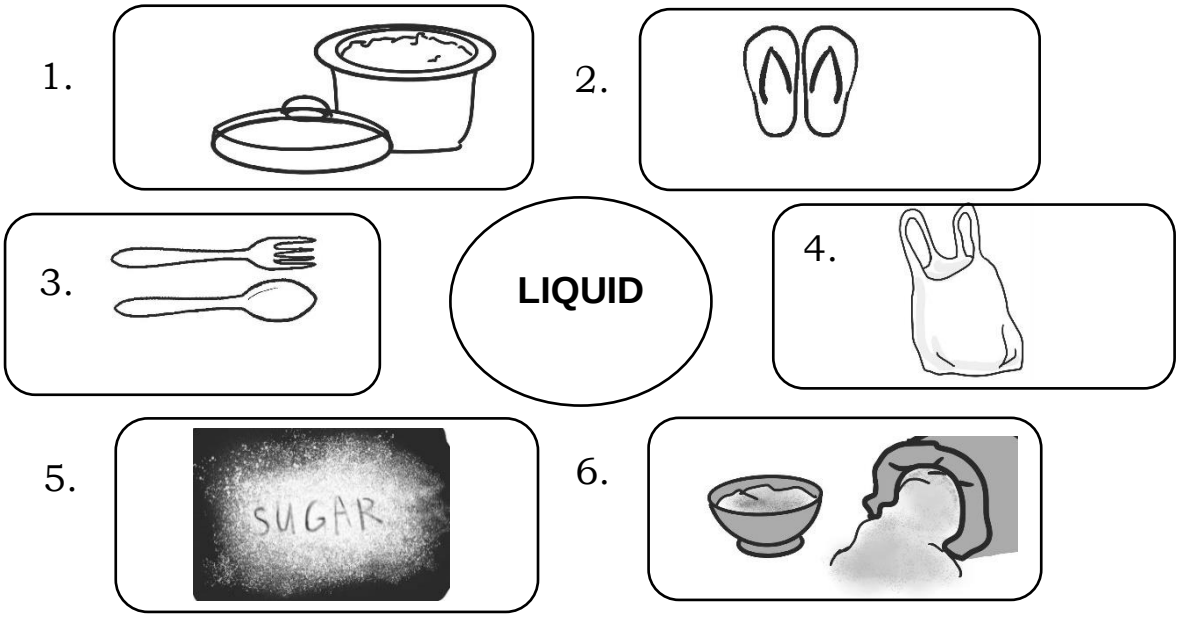
Lesson 3	**"Describe what happens to Solid Materials when Mixed with other Liquid Materials?"**

Have you experienced making a cup of coffee for your love ones? It's one way of showing thoughtfulness to make them feel loved. I'm sure they will feel so much special if you do it, of course if you properly mixed coffee, creamer and sugar in a cup of hot water.

In this lesson, it will help you to learn and understand what happens when solid materials like coffee, sugar and creamer are mixed with liquid material such as hot water.

What's In

Directions: Put a check (✓) mark to the pictures which can be dissolved in **liquid.** Write your answers in your science notebook.



Illustrated by: Kristal Grace C. Ilao

Amazing! You are doing great.

What's New

Note to Parent/Guardian: Guide your children while doing the various activities in this module. Remind them to observe precautionary measures and to be careful in handling the materials while performing the activity**.**

To the Learner:

Directions: Perform each activity and answer the questions that follow. Write your answers in your Science notebook.

Activity 1: "What Happens to Solid materials when mixed with other Liquid Materials?"

What You Need:

teaspoon of ginger, 4 pieces of clear drinking glass water, vinegar, alcohol, cooking oil, sand, flour, salt, pepper, vetsin, coffee, malunggay leaves

What to Do?

Describe what happens to the following solid materials when combined/mixed with liquid material.

Solid Materials Mixed with the Liquid Materials	Did the solid materials completely dissolved in liquid		Changes observed when solid and liquid materials mixed
	Y	N	
sand and water			
salt and vinegar			
flour and cooking oil			
pepper and vinegar			

ginger and rubbing alcohol			
coffee and water			
malunggay leaves and water			

1. What are the solid materials that can be dissolved or completely dissolved in liquid materials?

2. What are the solid materials that cannot be dissolved completely in liquid materials?

Great! You almost got it! Congratulations! You did well.

What is It

Points to Remember:

When two or more materials are combined, a mixture is formed. Mixed materials can be classified depending on the appearance of the resulting mixture.

Solid materials can be mixed/combined with other liquid materials completely. Some solid materials completely dissolved in the liquid materials, but others do not.

Some solid materials settled at the bottom of the container, while others stayed within the liquid.

Some solid materials spread out evenly in the liquid materials, but some do not.

When mixed with liquid, some solid materials changed their size, shape and color, but some do not.

What's More

Activity 1: "You Should Know Me Better"

Directions: In the pair of given materials, write **CM** if the given solid materials completely mixed with the liquid material and **NCM** if the solid material do not completely mixed with the liquid materials. Do it in your Science notebook.

_____1. oil and butter
_____2. calamansi juice and sugar
_____3. soy sauce and rice
_____4. water and vetsin
_____5. alcohol and black pepper
_____6. garlic and vinegar
_____7. onion and soy sauce
_____8. soft drinks and bread
_____9. evaporated milk and mango
_____10.kerosene and leaves

Activity 2: "Changes in the Materials"

Directions: Describe what happens to solid materials when mixed with liquid materials.

Materials	Changes in the Materials
1. piece of banana and water	
2. sugar and oil	
3. vinegar and salt	
4. flour and water	
5. powder soap and water	

That's better! Keep it up!

What I Have Learned

Directions: Choose the right word that will fit to the given statement. Answers cannot be repeated. Write your answers on your Science notebook.

bottom, mixture, liquid, appearance, color

I have learned that...

1. When two or more materials are combined, a _____ is formed.
2. Mixed materials can be classified depending on the _____ of the resulting mixture.
3. Solid materials can be mixed/combined with other liquid materials completely. Some solid materials completely dissolved in the _____ materials, but others do not.
4. Some solid materials settled at the _____ of the container, while others stayed within the liquid.
5. Some solid materials spread out evenly in the liquid materials, but some do not. When mixed with liquid, some solid materials changed their size, shape, _____ but some do not.

MARVELOUS! You're really improving! Try some more!

What I Can Do

Directions: Answer the question briefly. Write your answer in your Science notebook.

Karen has a juice for snacks. When she tasted it, it tastes too sweet but she can't measure the amount of sugar her sister added to her juice. Why is it not possible for her to measure the amount of sugar in her juice?

Assessment

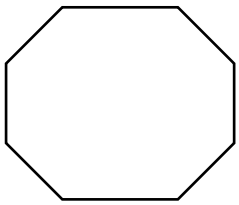
Directions: Describe what happens to the following solid materials when mixed with other liquid materials. Write your answers in your notebook.

1. flour and hot water - _____
2. powdered juice and water - _____
3. garlic and vinegar - _____
4. ginger and soy sauce - _____
5. bread and water - _____
6. soda and coffee - _____
7. alcohol and onion - _____
8. coconut milk and black pepper -_____
9. malunggay leaves and cooking oil -_____
10. sugar and cold water - _____
11. camote leaves and water - _____
12. powder detergent and water- _____
13. patis and iodized salt - _____
14. vinegar and milk - _____
15. soy sauce and pepper - _____

CONGRATULATIONS! You outdid yourself today!

Additional Activities

Directions: Draw pair of solid and liquid materials in each box. Describe what happens to solid materials when mixed with liquid materials in each pair.



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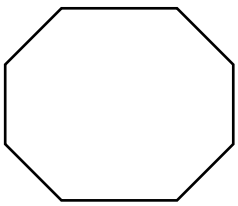

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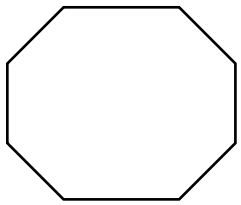

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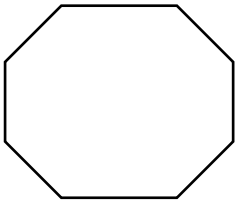

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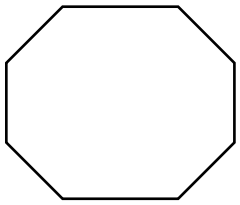

_____

Answer Key

LESSON 1

What I Know

A.	B.
1. It will turn into liquid..	1. soft drinks-blue
2. It will turn into solid.	2. chalk-red
3. It will turn into liquid.	3. soy sauce-blue
4. It will turn into solid.	4.vinegar-blue
	5.coconut milk-blue
	6.bread-red
	7.evaporated milk-blue
	8.salt-red
	9. sugar-red
	10. water-blue

What's In

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

B. 1. pressing 4. bending 7.crumpling 10.folding
2. cutting 5. stretching 8. pounding/hammering
3. melting 6. twisting 9. tearing

What's New

ACTIVITY 1: *"It is getting hot…What will I turn into?"*

Materials	When Heated	When Cooled
melting butter/margarine	size, shape, texture	It turned into soliid.
melting candle	size, shape, texture	It turned into soliid.
melting chocolate	size, shape, texture	It turned into soliid.
melting crayons	size, shape, texture	It turned into soliid.

Answers to Guide Questions:
1. They melt. when heated and the temperature increases.
When cooled, the materials changed from liquid to solid.
2. Yes
3. They changed in size, shape and texture.

What's More

Direction 1.	
1. melted	6. all forms
2. melted	7. all forms
3. melted	8. all forms
4. all forms	9. all forms
5. all forms	10. physical and chemical change

What I Have Learned

A.

- size
- temperature
- liquid
- cooled
- decreases

What I Can Do

Possible answers:
I will use hot water instead of cold water because hot water will dissolve the coffee powder and the sugar easily.

Assessment

1. solid	6. Liquid	**HOT**	**COOLED**
2. shape	7. A	11. Melted	14. hardened
3. hard	8. B	12. Softened	15. Turned to solid
4. melt	9. C	13. turned to liquid	
5. solid	10.D		

Additional Activities

- Answers may vary

LESSON 2

Answers to Guide Questions:
1. Sand and pebbles, rock salt and black pepper, paper clips and staple wire, rice grains and corn grits
2. Instant coffee and creamer, white sugar and iodized salt, corn starch and creamer,iodized salt and vetsin/MSG.
3. None
4. Some solid materials when mixed with other solid materials each of the combined materials can be easily identified and some cannot be distinguished from each other.
5. Solid materials when mixed/combined with other solid materials do not change their size, shape and color.

Solid Materials	Can you still identify/distinguish each solid material in the mixture?		Did the resulting mixture look the same throughout?		Is there a change in the property of each solid material in the mixture?	
	Yes	No	Yes	No	Yes	No
1. sand and pebbles	✓		✓			✓
2. rice grains and corn grits	✓		✓			✓
3. instant coffee and creamer	✓		✓			✓
4.rock salt and black pepper	✓		✓			✓
5. white sugar and iodized salt		✓	✓			✓
6. cornstarch and creamer		✓	✓			✓
7. paper clips and staple wire	✓		✓			✓
8. iodized salt and vetsin or MSG		✓	✓			✓
9.powdered detergent and rock salt		✓	✓			✓
10.flour and baby powder		✓	✓			✓

What's New

1. corn grits ad rice- **one**
2. onion nad vinegar- **two**
3. pebbles and sand- **one**
4. fruits and vegetables- **one**
5. soy sauce nad garlic - **two**

What's In

What Is It

What's More

ACTIVITY 1: " Homogenous or Heterogeneous"

1. HT	***11. HT***
2.HT	***12. HT***
3. HT	***13. HT***
4. HT	***14. HM***
5. HT	***15. HM***
6. HT	***16. HT***
7. HT	***17. HT***
8. HM	***18. HT***
9. HT	***19. HM***
10. HT	***20. HT***

ACTIVITY 2: "Solid Materials &Iodized Salt to form Homogeneous Mixtures"

- Pupils' answer may vary.

ACTIVITY 3: "Solid Materials & Palay to Form Hetero Mixtures"

- Pupils' answer may vary.

ACTIVITY 4: "Solid to Solid Mixtures"

Solid Materials	**Is there a change in the property of a solid materials?**	
	Y	**N**
sand and pebbles		√
rice grain and corn grits		√
milk and creamer		√
rock salt and pepper		√
white sugar and iodized salt		√
corn starch and creamer		√
iodized salt and vetsin or MSG		√

What I Have Learned

1. mixture 2. Heterogeneous 3. Homogenous
4. change 5. the same

What I Can Do

Possible answers:

a. Combined fruits can still be identified. They formed heterogeneous mixtures. However, milk and cream cannot be distinguished from one another. Milk and cream formed homogeneous mixtures

Assessment

A.

1. formed
2. identified
3. distinguished
4. the same
5. size, shape and color

B.

1. Heterogeneous
2. Heterogeneous
3. Heterogeneous
4. Heterogeneous
5. Heterogeneous

6. Heterogeneous
7. Heterogeneous
8. Homogeneous
9. Heterogeneous
10. Homogeneous

Additional Activities

Pupils' answer may vary.

x

LESSON 3

Solid Materials Mixed with the Liquid Materials	Did the solid materials completely dissolved in liquid		Changes observed when solid and liquid materials mixed
	Y	N	
sand and water		✓	Changes in size, shape and color
salt and vinegar	✓		Changes in size, shape
flour and cooking oil		✓	Changes in size, shape and color
pepper and vinegar		✓	Changes in size, shape
ginger and rubbing alcohol		✓	Changes in size, shape
coffee and water	✓		Changes in size, shape and color
malunggay leaves and water		✓	Changes in size, shape

What's New

What's In

Milk - ✓
Sugar - ✓
Flour -✓

Answers to Guide Questions:
1. coffee and water, salt and vinegar,
2. sand and water, flour and cooking oil, ginger and rubbing alcohol, malunggay leaves and water.

What's More

Activity 1: "You Should Know Me Better"

1.NCM	6. NCM
2. CM	7. NCM
3. NCM	8. NCM
4. CM	9. CM
5. NCM	10. NCM

Activity 2: "Changes in the Materials"

Materials	Changes in the materials
1. water and piece of banana	do not dissolved / mixed completely
2. sugar and oil	do not dissolved/ mixed completely
3. salt and vinegar	dissolved/mixed completely
4. flour and water	dissolved/mixed completely
5. powder soap and water	dissolved/mixed completely

What I Have Learned

1. mixture 3. Liquid 5. color
2. appearance 4. bottom

What I Can Do

- Pupils' answer may vary.

Assessment

1. dissolved completely 6. Dissolve completely 11. Do not dissolve
2. dissolved completely 7. do not dissolve 12. Dissolve completely
3. do not dissolve 8. do not dissolve 13. Dissolve completely
4. do not dissolve 9. do not dissolve 14. . Dissolve completely
5 do not dissolve 10.dissolve completely 15. . Dissolve completely

Additional Activities

Pupils' answer may vary.

References

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