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Science

Quarter 1 - Module 5B:
Changes in the Properties of Materials when Mixed with Other Materials

Department of Education • Republic of the Philippines

Science – Grade 4
Alternative Delivery Mode
Quarter 1 - Module 5B: Changes in the Properties of the Materials when Mixed with other Materials
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Development Team of the Module

Authors:	Felma D. Timkang
Editor:	Janette V. Bejona
Reviewers:	Jimbo Russell C. Agbayani, EPS – Science Maritel L. Agbayani, PSDS Desiree Rose Q. Allaba Fabrienne Isa M. Cabanao Meliza Dao-ayan
Illustrator:	Dandy C. Batusin
Layout Artists:	John Rimmon I. Taquiso
Management Team:	
Chairperson:	Rebonfamil R. Baguio *Schools Division Superintendent*
Co-Chairperson:	Eugene I. Macahis, Jr. Asst. Schools Division Superintendent
Members:	Jayvy C. Vegafria, CID Chief ES Jimbo Russell C. Agbayani, EPS – Science Analisa C. Unabia, EPS – LRMS Joan Sirica V. Camposo, Librarian II Israel C. Adrigado, PDO II

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Science

Quarter 1 - Module 5B: Changes in the Properties of Materials when Mixed with other Materials

This instructional material was collaboratively developed and reviewed by educators from public schools. We encourage teachers and other education stakeholders to email their feedback, comments, and recommendations to the Department of education at region10@deped.gov.ph.

We value your feedback and recommendations.

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What This Module is About

One of the joys of learning science is seeing how scientific principles operate in all aspects. As you study, keep in mind that the facts and concepts you are about to learn are not ends in themselves, but they are tools to help you understand better the world where you live.

Notes to the Teacher

Dear Teacher,

This is a self-placed module with various activities to be done at home by the learners. Clear and careful instructions must be given to the learners to ensure safety and avoid misconceptions in performing the activities.

What I Need to Know

Anything that you see around is matter. In this module, you will learn about the different mixtures and their characteristics in terms of mixing solid with another solid or mixing a solid with a liquid. You will also learn the differences between a heterogeneous and a homogeneous mixture.

Through different activities, you will also learn about reversible and irreversible combination of mixtures.

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

1. describe what happens to solid materials when mixed with other solid materials.

2. describe what happens to solid materials when mixed with liquid materials.

3. describe what happens to liquid materials when mixed with other liquid materials.

How to Learn from this Module

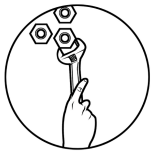
To achieve the objectives cited above, you are to do the following:

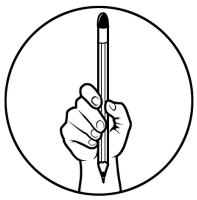
- Take your time in reading carefully the lessons.

- Follow diligently the directions and/or instructions in the activities and exercises.

- Answer all the given tests and exercises.

Icons of this Module

	What I Need to Know	This part contains learning objectives that are set for you to learn as you go along the module.
	What I Know	This is an assessment as to your level of knowledge to the subject matter at hand, meant specifically to gauge prior related knowledge
	What's In	This part connects previous lesson with that of the current one.
	What's New	An introduction of the new lesson through various activities, before it will be presented to you
	What is It	These are discussions of the activities as a way to deepen your discovery and understanding of the concept.
	What's More	These are follow-up activities that are intended for you to practice further in order to master the competencies.
	What I Have Learned	Activities designed to process what you have learned from the lesson
	What I Can Do	These are tasks designed to showcase your skills and knowledge gained, and applied into real-life concerns and situations.
	Post Assessment	This assessment evaluates your level of mastery in achieving the learning objectives
	More Activities	Activities designed to increase the strength of your skills and knowledge gained and tends to induce repetitions of actions / learning



What I Know

Try me!

Test A.

Directions: Analyze the following mixtures. Write **HM** if it is a homogeneous mixture and **HT** if it is a heterogeneous mixture. Write your answers in your Answer Sheet.

1. Oil and water
2. Palay and pebbles
3. Sand and alcohol
4. Water and soda
5. Petals and leaves

Test B.

Directions: Read and understand the situations. Write the letter of your chosen answer in the Answer Sheet.

6. Which of the following describes what happens to white sugar when mixed with iodized salt?
   A. White sugar can still be distinguished from the iodized salt
   B. White sugar cannot be distinguished from the iodized salt.
   C. White sugar settles at the bottom of iodized salt.
   B. White sugar completely mixed with iodized salt.

7. What happens when flour is mixed with cold water?
   A. The flour will completely dissolve in water.
   B. The flour will partially dissolve in water.
   C. The flour will not dissolve in water at all.
   D. The flour will not settle at the bottom of the water.

8. When alcohol is mixed with water, alcohol and water will_____.
   A. completely mix
   B. partially mix
   C. not mix at all
   D. form two layers

9. Describe what happens to cooking oil when mixed with water.
   A. They will completely mix.
   B. Two layers will be formed.
   C. The two will partially mix.
   D. None of the above

10. Which of the situations below is TRUE when salt is mixed with water?
   A. Salt completely dissolves in water.
   B. Salt will settle at the bottom of the container.
   C. The water cannot dissolve the salt.
   D. All of the above

Lesson 1

Mixing Solids
(Heterogeneous and Homogeneous)

When two or more materials are combined, a mixture is formed. There are two kinds of mixtures: homogeneous mixture and heterogeneous mixture.

Some solid materials will dissolve in liquids, while others do not.

A liquid mixed with another liquid may completely mix. Meanwhile, there are liquids which do not mix with other liquids, but instead, form two layers.

Week 8	Day 1

What's In

It's all that matters!

Directions: There are three phases of matter: solid, liquid, and gas. Classify each material found inside the box according to phase. Write your answers in your Answer Sheet.

Air	Oxygen
Alcohol	Soda
Black pepper	Soil
Cracked corn	Vinegar
Instant coffee	Water

Solid	Liquid	Gas

What's New?

Go Experiments!

You may perform this activity on a table or any clean space.

You need the following materials:

Powdered detergent	Brown Sugar	4 sheets of paper
Magic Sarap granules	Rock salt	
Sand	White sugar	
Pebbles	Vetsin	

Directions:

1. Get ready with your materials.
2. Mark each piece of paper with A, B, C, and D.
3. Lay the marked papers on the tables.
4. Make a mixture by mixing the two materials on each piece of paper. Use a teaspoon to combine very well the two materials.

    - Paper A - 1 teaspoon powdered detergent and 1teaspoon rock salt
    - Paper B - ¼ teaspoon white sugar and ¼ teaspoon vetsin
    - Paper C - ½ teaspoon brown sugar and ½ teaspoon magic sarap granules
    - Paper D - 1 cup sand and 1 cup pebbles

5. Observe the resulting mixtures. Fill in the table with your observations by checking the appropriate answer either Yes or No.

Activity Work Sheet

Check (/) your observation.

QUESTIONS	ANSWER	
	YES	NO
1. Did the two solid materials mix together?		
2. Can you still identify the white sugar from vetsin after mixing them?		
3. In pebbles and sand mixture, can the pebbles still be distinguished from the sand?		
4. When two solid materials are mixed, is there a change in their size, shape, and color?		

What is It

Learning Circuit

- When some solid materials are mixed with other solids and forms a uniform appearance or that every material cannot be identified/distinguished from each other, this is called a **homogeneous** mixture.

- When some solid materials are mixed with other solids and each of the combined materials can be easily identified from one another, this is called a **heterogeneous** mixture.

- The properties of each solid material in the mixture do not change. Even after mixing, the size, shape, and color of each solid material remains the same.
- We must keep safety precautions in labeling and sorting solid household materials at home.

Questions:

1. What do we call this kind of mixtures when two solid materials mixed together cannot be distinguished?

2. What do we call this kind of mixtures when two solid materials can be distinguished or identified from each other when mixed?

3. Which type of solid mixtures do not change their size, shape, and color when mixed?

4. Why can't we distinguish each material in some solid mixtures?

5. Why two materials in some solid mixtures can be identified or distinguished?

What's More

Choose the best answer!

Directions: Think and select your best answer for these questions**.**

1. What kind of mixture will be formed when mongo beans and rice grains are mixed?
   A. Heterogeneous mixtures
   B. Combined Mixture
   C. Homogeneous mixtures
   D. Mono Mixture

2. Which among these solid materials can be identified when mixed?

A. Pins and paper clips B. flour and corn starch
B. Coffee and Milo D. Powdered milk and baking soda

3. Which is an example of a heterogeneous mixture?
   A. Baby powder and flour C. sand and pebbles
   B. Detergent powder D. flour and baking soda

4. Which mixture can be identified as homogeneous mixtures?
   A. Corn starch and baby powder
   B. brown sugar and magic sarap
   C. sand and soil
   D. salt and pepper

5. What will happen to the properties of each solid material in a mixture?
   A. The color of each solid material will change.
   B. The size, color, and shape of each solid material will remain the same.
   C. The properties of each solid material will change.
   D. The solid material will no longer be used.

What I Have Learned

Mix it Up!

Directions: Write **HM** for homogeneous mixture or **HT** for heterogeneous mixture.

_____1. Baby oil and water

_____2. Basket balls and soccer balls

_____3. Black human hair and corn hair

_____4. Cooking oil and water

_____5. Palay and pebbles

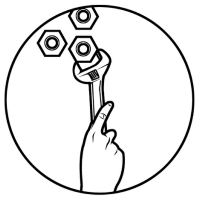
_____6. Petals and leaves

_____7. Powder and powdered creamer

_____8. Sand and alcohol

_____9. Stone and clay soil

_____10. Soda and water



What I Can Do

Do it right!

Directions: Choose the letter of your best answer.

1. Which solid materials cannot be identified when mixed with other solid materials?
   A. Baby powder and coffee creamer
   C. Pebbles and sand
   D. Nails and push pins
   E. Rocks and gravel

2. Which solid materials can be identified when mixed with other solids?
   A. Paper clip and thumbtacks
   B. Baby powder and coffee creamer
   C. Iodized salt and vetsin
   D. Flour and corn starch

3. What type of mixture is the fruit salad?
   A. Heterogeneous mixture
   B. Homogeneous mixture
   C. All of the above
   D. None of the above

4. Which is an example of a hetergenous mixtures?
   A. Coffee creamer and flour
   B. White sugar and iodized salt
   C. Powdered detergent and flour

D. Sand and corn grits

5. Select the type of mixture when the two solids look the same.
   A. Homogeneous mixture
   B. Heterogeneous mixture
   C. All of the above
   D. None of the above

Answer Key

What I can do
1.A
2.A
3. B
4. A
5. A

What's new
1.yes
2. yes
3. yes
4. yes

What I have learned
1.HT
2.HT
3. HM
4.IHM
5. HT
6. HT
7.HM
8.HT
9.HT
10. HT

What's In
1.gas
2.solid
3.solid
4.liquid
5. liquid
6. solid
7.gas
8.liquid
9.liquid
10.solid

What's more
1.A
2.A
3. C
4. A
5.B

What I know
1.A
2.A
3. C
4. A
5.B
6.
7.
8.
9.
10.

What is it
1.Homogeneous mixture
2. Heterogeneous mixture
3. Sand and pebbles, rock salt and powder detergent, flour and baby powder, brown sugar and vetsin
4. the solid materials have the same appearance
5. the solid materials are not of the same appearnce

Lesson 1

Mi
(Heterogen

Lesson 2 Mixing Solid with Liquid

Many things around you are mixtures. Solids do not only mix with solids, they also mix with liquid materials. Some solids mix well with liquids, especially in water while other solids do not mix well with liquids.

In this lesson you will learn about what will happen to solid materials when mixed with liquid materials.

Week 8	Day 2

What's In

More Liquid!

Analyze the pictures and answer the questions:

A

B

C

D

1. What are these materials?
2. In what phase of matter does each material belong?

What's New

Find me!

Directions:

A. Name three liquid materials found in a particular place.
B. Describe the appearance of the liquid materials found in ach place.

Inside the Classroom	
Liquid Materials	Three words to describe the liquid materials
1.	
2.	
3.	

Food Eatery	
Liquid Materials	Three words to describe the liquid materials
1	
2	
3	

Sari-sari store	
Liquid Materials	Three words to describe the liquid materials
1	
2	
3	

At Home	
Liquid Materials	Three words to describe the liquid materials
1	
2	
3	

What is It?

Learning Circuit

Liquid is another phase of matter. Liquids have no definite size or shape. You cannot say that a liquid is small or big, round or square. They just follow the size and shape of their containers. Liquids flow. We cannot hold it with our bare hands. They should be placed inside a container so that they will be carried.

Questions:

1. Explain why liquids are placed inside a bottle or a container. (Answers may vary too)

2. Why can we not hold liquids with our bare hands?

What's More

Find my name!

Directions: Search the puzzle for materials that are liquids.

M	O	N	I	W	K	L	A	S	E	F	G	V
I	N	S	T	A	N	T	C	O	F	F	E	E
L	D	O	L	T	I	H	B	I	T	D	S	B
K	S	F	I	E	F	A	H	L	Y	D	K	K
L	R	T	W	R	A	S	G	A	T	E	O	S
H	E	D	A	J	S	F	T	D	R	J	L	A
G	A	R	S	H	F	R	E	S	A	K	H	E
E	T	I	E	A	S	D	A	E	T	E	I	R
S	H	N	D	E	R	T	Y	A	D	G	J	T
F	G	K	A	R	H	J	I	L	O	I	F	W

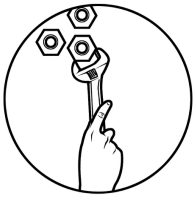
alcohol water vinegar liquid soy sauce

What I Have Learned

Fill me up!

Directions: Fill in the blank spaces for words to complete the sentence.

_____ is a state of matter that has no definite _____ and
(1) (2)
_____unless it is put in a container.
(3)



What I Can Do

Directions: Choose the letter of the correct answer and write in your Answer Sheet.

1. Pedro is playing basketball with his friends in the covered court. After one game, he felt thirsty. Which of the following is the BEST liquid material that can quench his thirst?

   A. coffee
   B. orange juice
   C. softdrinks
   D. water

2. Which of the following is NOT a characteristic of a liquid?
   A. easily be compressed
   B. permanent shape
   C. shape depends on its container
   D. size not permanent

3. Which of the following is a liquid?
   A. ice B. gel C. paint D. ice cream

4. What will happen if we mix the salt with water?
   A. Dissolve completely
   B. Not Dissolve
   C. Remains the same
   D. Nothing happens

5. What happen to the liquid when it is place into a container?
   A. It will flow
   B. Nothing happens
   C. It remains the same
   D. The liquid will form the shape of the container

Answer Key

Lesson 2

Mixing Solid with Liquid

What can I do?
1.D
2. B
3. C
4. A
5. D

What's More
1.water
2. milk
3. softdrinks
4. tea
5. sea
6. coffee

What I have learned
1.Liquid
2. Size
3. Shape

What in
1.Alcohol
water
Vinegar
soy sauce
2. Liquid

What is it
1.Because liquids has no definite shape, size and texture.
2. we cannot hold the liquids with our bare hands because it will flow and has no shape and size.

What's new
1.Classroom- water, alcohol, juice Flow, no shape, no size
2.public market- water, vinegar, oil Easily flow, oil will not flow easily
3. sari-sari store-oil, soft drinks, ketchup - sticky liquid, flow easily
4. home- water, milk, perfume Easily flow, no definite shape, no size
5. carenderia- juice,water, canned evaporated milk No shape, no size, flow easily

Lesson 3 Mixing Solids with Liquids

There are many ways to discover the things around us. In this lesson, you will discover about what will happen to solid materials when mixed with liquid materials.

Solid materials can be mixed/ combined with liquid materials. Some solid materials completely dissolve in liquid materials, while others do not. Some solid materials settle at the bottom of the container, while others stayed within the liquid.

Now find out and enjoy the next activities.

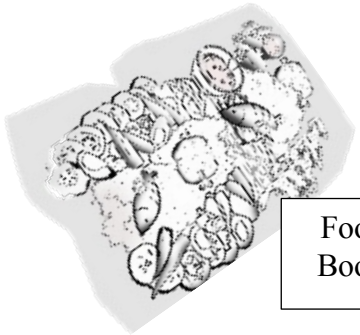
Week 8	Day 3

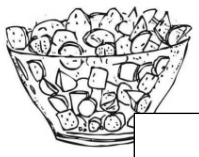
What's In

Directions: Identify these pictures as to homogenous or heterogeneous mixture. Write your answers in your Answer Sheet.

.

___1.  Avocado shake

___2.  Food set for Boodle fight

___ 3.  Fruit salad

___ 4.  Coffee

What's New

Directions:

1. Gather the following materials:
   ginger — 1pc. Teaspoon
   tap water — 4 pcs. clear drinking glass
   vinegar
   cooking oil
   rubbing alcohol
   a pinch of flour, salt ,pepper, vetsin, dye (jobos)
   malunggay leaves

2. What to do:
   a. Prepare the mixtures as listed in the table.

Solid Materials mixed with the Liquid Material	Did the solid material completely dissolve in the liquid material?	
	Yes	No
Sand and water		
Salt and vinegar		
Flour and cooking oil		
Pepper and vinegar		
Vetsin and vinegar		
Ginger and rubbing alcohol		
Dye(jobos) and water		
Malungay leaves and water		

   b. After mixing the materials, observe what happens.

   c. Record your observations on the activity card by checking the column either Yes or No.

What is It

Learning Circuit

Solid materials can be mixed/ combined with liquid materials. Some solid materials completely dissolve in liquid materials, while others do not. Some solid materials settle at the bottom of the container, while others stayed within the liquid. Some solid materials spread out evenly in the liquid materials, while some do not. When mixed with liquids, some solid materials changed their size, shape, and color, while some do not.

Questions:

a. What solid materials completely dissolved in liquid materials?

b. What solid materials that did not completely dissolve in liquid materials?

c. What were the different changes observed when solid and liquid materials were mixed?

d. What happened to the solid materials when mixed with the liquid materials?

What's more

Directions: Put a check (/) for the best reason for each set of mixture listed below.

Mixtures	Solid material dissolves in liquid.	Solid material did not dissolve in liquid.	Liquid material completely mixed with other liquid material.	Mixed liquid materials formed two layers.
1. Sand and water				
2. Oil and soda				
3. Vinegar and patis				
4. Salt and pepper				
5. Flour and water				

What I Have Learned

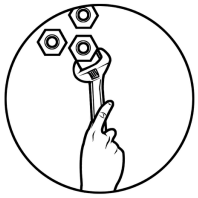
Directions: What will possibly happen if flour, salt, and milk are mixed with water? Make your hypothesis.

Note: A hypothesis is an educated guess.

Hypothesis 1: When mixed in water, the flour will _____.

Hypothesis 2: When mixed in water, the salt will_____.

Hypothesis 3: When mixed in water, the milk will_____.



What I Can Do

Directions: Write the correct letter of your answer in your Answer Sheet.

1. What will happen when you mix a teaspoon of salt in a glass of warm water?
   A. It will float in water.
   B. It will sink.
   C. It will dissolve.
   D. It will remain the same.

2. What happens when you mix powdered chocolate in a hot water?
   A. It will turn into solid.
   B. It will evaporate.
   C. It will dissolve.
   D. It remains the same.

3. Which of the following substances will not dissolve in water?
   A. Milk
   B. Salt
   C. Powdered juice
   D. Sand

4. Why does a powdered detergent dissolves faster in water than a detergent bar?
   A. The grains are tiny.
   B. The grains are tightly packed.
   C. The grains are bluish.
   D. All of the above.

__5. When mixed with water, why do *malunggay* leaves settle at the bottom of the glass?
   A. It evenly dissolves .
   B. It partially dissolves.
   C. It will not dissolve.
   D. None of the above

Answer Key

Lesson 3

Mixing Solids with Liquids

What I can do
1.C
2. C
3. D
4. D
5. C

What I have learned
1.Will dissolve
2. completely dissolve in water
3. completely dissolve

What' more
1./ Did not dissolve in water
2. /dissolve in water
3. /liquid water mixed with water
4. /solid materials did not dissolve in water
5. / dissolve in water

What is it
a.salt and vinegar, vetsin and vinegar, powdered dye and water
b. sand and water, flour and cooking oil, pepper and vinegar,genger and rubbing alcohol malunggay leaves and water
c. some solid can easily dissolve in liquid but there are also solid materials that cannot be dissolved in liquid.
d. there are some solid that will dissolved directly in liquid but there also some that does not.

What's new
1.no
2. yes
3. no
4. no
5. yes
6. no
7. yes
8. no

Lesson 4

Liquids Mixed with Liquids

Liquid is another phase of matter. Its size, shape and fixed volume are dependent upon its container.

Liquid materials can be mixed with other liquids. While some liquid materials completely mix with other liquids, others form two layers like oil and water.

May you discover more and learn a lot from this lesson.

Week 8	Day 4

What's In

Directions: Answer by checking the appropriate box.

Solid Material Mixed with Liquid Material	Did the solid material completely dissolve in the liquid material?	
	Yes	No
1. Sugar and water		
2. Detergent powder and soy sauce		
3. Sand and vinegar		
4. Malungay leaves and water		
5. Vetsin and cooking oil		

1. What are the solid materials that completely dissolve in liquid materials?
2. What are the solid materials that did not dissolve in liquid materials?

What's New

Mix me up!

Directions: Prepare the mixtures as indicated in the table below. Check the appropriate box in the Activity sheet which relate to your observations.

Activity Sheet

Mixtures	Did the two liquid materials completely mixed?		Changes observed when the two liquid materials were mixed
	Yes	No	
Soy sauce and vinegar			
Cooking oil and water			
Rubbing alcohol and water			
Fish sauce(patis) and vinegar			
Soy sauce and cooking oil			
Soda/ softdrinks and water			
Coconut milk and water			

What is It?

Learning Circuit

- Liquid materials mix with other liquid materials. While some liquid materials completely mix with other liquids, others form two layers like oil and water.

- (Valuing): What are some safe precautionary measures that we need to observe when mixing liquid materials?

Questions:

1. Give at least three (3) examples of liquid materials which mixed completely? What made this happen?
2. Identify liquid materials that do not mix completely? What made this happen?
3. What changes did you observe when two liquid materials mixed?
4. What happens to the liquid materials when mixed with other liquid materials?

What's More

Directions: Observe what happens when these pairs of materials are mixed together. Check the appropriate box which relates to your observations.

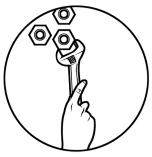
Mixtures	Completely mixed	Did not mix
Water and rubbing alcohol		
Vinegar and Soy sauce		
Soft drink and Milk		
Cooking oil and Water		
Perfume and rubbing alcohol		

What I Have Learned

Fill me up!

Directions: Complete the sentence by starting with

I have learned that _____
_____
_____
_____



What I Can Do

Directions: Answer the following questions by writing the correct letter in your Answer Sheet.

1. What will happen when you mix vinegar with warm water?
   A. It will float in water.
   B. It will partially dissolve.
   C. It will evenly dissolve.
   D. It will remain the same.

2. The following liquids will completely mix EXCEPT ONE
   A. Fish sauce and vinegar
   B. Vinegar and soy sauce
   C. Oil and water
   D. Water and rubbing alcohol

3. Which of the following substances will not completely mixed with water?
   A. Alcohol
   B. Baby cologne
   C. Oil
   D. Soy sauce

4. What would be the inference when kerosene and rubbing alcohol are combined together?
   A. Completely mix
   B. Partially mix
   C. Will not mix at all
   D. None of the above

5. Which of the following substances will completely mix with rubbing alcohol?
   A. Baby oil
   B. Kerosene
   C. Oil
   D. Water

Answer Key

Lesson 4

Liquids Mixed with Liquids

What's more
1.completely mix
2. completely mix
3. completely mix
4. not mixed
5. completely mix

What I can do
1.c
2. c
3. d
4. d
5. A

What I have learned
I have learned that there are some liquid materials that completely mix with other liquid materials but there are also liquid materials that will form two layers example is water.

What is it
1.fish sauces and vinegar, soy sauce and vinegar, alcohol and water, soft drinks and water. Because the liquids mix completely.
2. cooking oil and soy sauce, cooking oil and water, coconut milk and water. It forms two layers
3. it forms two layers
4. some liquid materials completely dissolve in water but some forms two layers

What's new
1.yes- completely mix
2. no-form two layers
3. yes- completely mix
4. yes- form two layers
5. no- forms two layers
6. yes – completely dissolve
7. no form two layers

What' in
1.yes
2. yes
3. no
4. no
5. no
Powder detergent, sugar and vetsin
Sand and malunggay leaves

Post Assessment

Test A

Directions: Choose the letter of the correct answer and write in your Answer Sheet.

1. Which of the following describes what happens to white sugar when mixed with iodized salt.
   A. White sugar can be distinguished from the iodized salt.
   B. White sugar cannot be distinguished from the iodized salt.
   C. White sugar settles at the bottom of iodized salt.
   D. White sugar completely mixed with iodized salt.

2. What will happen when flour is mixed with cold water?
   A.The flour will completely dissolve in water.
   B.The flour will partially dissolve in water.
   C. The flour will not dissolve in water at all.
   D. The flour will not settle at the bottom of the water.

3. When alcohol is mixed with water, they will_____.
   A. completely mix.
   B. partially mix.
   C. not mix at all.
   D. form two layers.

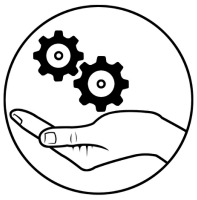
4. Describe what will happen to cooking oil when mixed with water.
   A. They will mix completely.
   B. Two layers will be formed.
   C. The two will partially mix
   D. None of the above

5. Which of the situations below is TRUE when salt is mixed with water?
   A. Salt completely dissolves in water.
   B. Salt will settle at the bottom of the container.
   C. Salt will not dissolve in water.
   D. All of the above

Test B

Directions: Analyze the following mixtures. Write **HM** if the mixture is homogeneous and **HT** if it is heterogeneous. Write your answers in your Answer Sheet.

6. Stone and clay soil
7. Powder and powdered creamer
8. Paper clip and thumb tacks
9. Black human hair and corn hair
10. Basket balls and soccer balls



Additional Activities

Activity 1

Write **True** if the materials will dissolve with water and **False** if it will not. Write your answers in your answer sheet.

____1. Solid sugar and water
____2. Rock salt and water
____3. Powdered milk and water
____4. Maggi cubes and water
____5. Solid chalk and water
____6. Flour and water
____7.White sugar and water
____8. Solid tawas and water
____9. Instant coffee and water
____10. Rock and water

Congratulations for working diligently with this module. Try to share your experience with your teacher or elder brother or sister at home.

Answer Key

Post Test A
1.C
2. D
3. A
4. B
5. A
TEST B
6. HT
7. HM
8. HT
9. HT
10. HT

Additional Activity II
1.true
2. true
3. true
4. true
5. false
6. true
7. true
8. true
9.true
10.`true

Name:_____Grade & Section:_____Score:___

Lesson 1	Mixing Solids (Heterogeneous Homogeneous)

Answer's Sheet

What I know
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

What's In
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

What's new
1.
2.
3.
4.

What's more
1.
2.
3.
4.
5.

What I have learned
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

What I can do
1.
2.
3.
4.
5.

Name: _____Grade & Section:_____Score:____

Lesson 2	Mixing Solid with Liquid

What in
1.
2.

What I have learned
1.
2.
3.

What's More
1.
2.
3.
4.
5.
6.

What's new
1.
2.
3.
4.
5.

What can I do?
1.
2.
3.
4.
5.

What is it
1.
2.

Name: _____Grade & Section: _____ Score: ___

Lesson 3 Mixing Solids with Liquids

What's new
1.
2.
3.
4.
5.
6.
7.
8.

What I have learned
1.
2
3.

What is it
A.
B.
C
D

What I can do
1.
2.
3.
4.
5.

What' more
1
2.
3.
4.
5.

Name: _____Grade & Section: _____ Score:___

Lesson 4

Liquids Mixed with Liquids

What' in
1.
2.
3.
4.
5.

What's new
1.
2.
3.
4.
5.
6.
7.

What is it
1.
2.
3.
4.

What I have learned

What I can do
1.
2.
3.
4.
5.

What's more
1
4.
5.

References:

Abutay, L R, D. C Bonao, E B. Crucis, et al (2015) Science- Grade 4 Learner's Materials, Lexicon Press. Inc.

Abutay, L R, D. C Bonao, E B. Crucis, et al (2015) Science- Grade 4 Teacher Guide, Lexicon Press. Inc.

Detailed Lesson Plan, Division of Valencia City (2019)

Lumidao K. C. (2019) Science Guide 4 Workbook.

For inquiries and feedback, please write or call:

Department of Education – Division of Valencia City

Lapu - Lapu Street, Poblacion, Valencia City 8709

Telefax: (088) 828 - 4615