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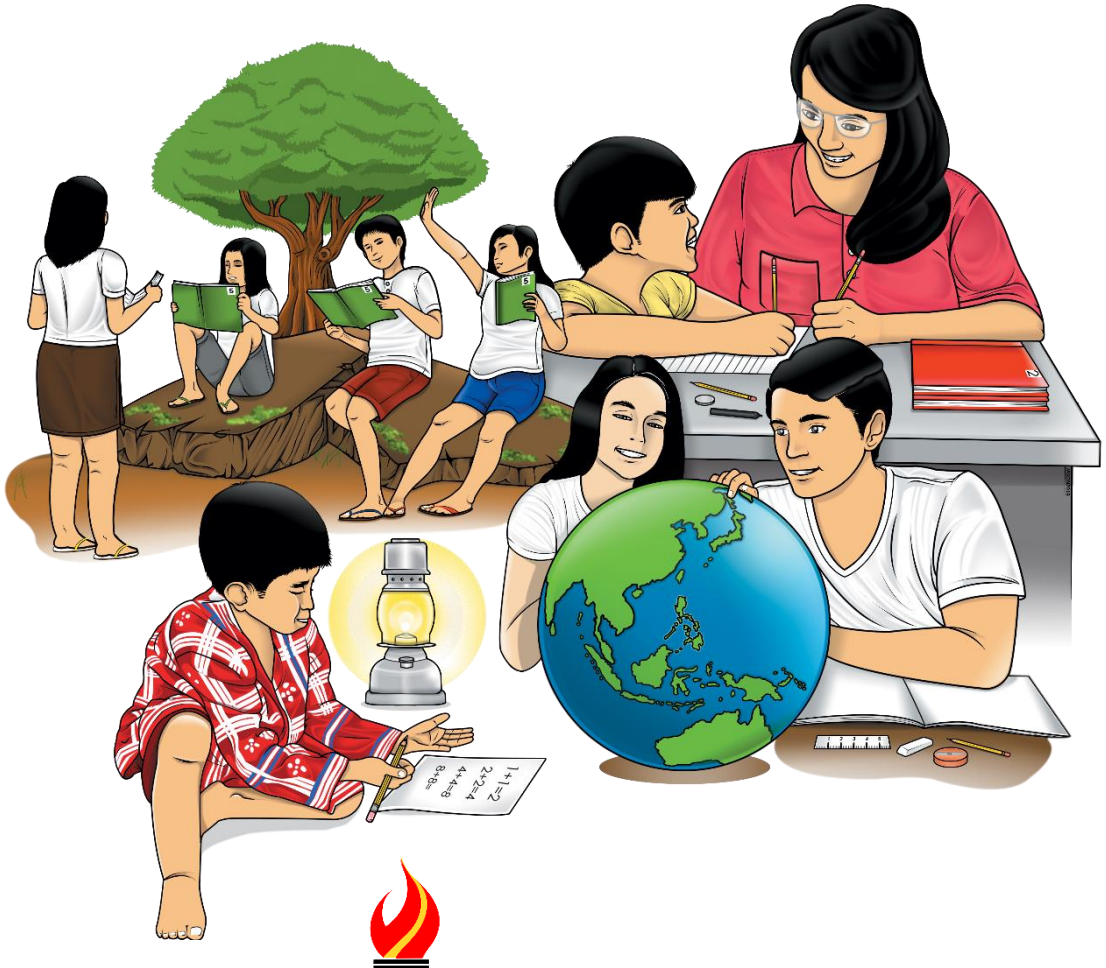
Science

Quarter 1 – Module 1:
Classifying Objects and Materials



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Science

Quarter 1 – Module 1:
Classifying Objects and Materials

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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.

Thank you.

What I Need to Know

This module was designed and written with you in mind. It is here to help you master the skill of classifying objects and materials as solid, liquid, and gas based on some observable characteristics (S3MT-Ic-d-2). The scope of this module allows it to be used in many different learning situations. The language used recognizes the different vocabulary levels of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to be similar to the textbook you are now using.

The module is divided into four lessons, namely:

- Lesson 1 – Objects and Materials Around Us and their Properties
- Lesson 2 – Solid Objects or Materials and their Characteristics
- Lesson 3 – Liquid Objects or Materials and their Characteristics
- Lesson 4 – Gaseous Objects or Materials and their Characteristics

After going through this module, you are expected to be able to:

1. Identify and describe objects and materials at home, in school, and the surroundings and classify them as solid, liquid, and gas.
2. Recognize and describe the observable characteristics of solid as to color, size, shape, and texture.
3. Describe observable characteristics of liquid as to its ability to flow and how they occupy space.
4. Name and describe observable characteristics of gas.

What I Know

Directions: Choose the letter of the best answer. Write the chosen letter on a separate sheet of paper. If you answer all the five questions modules correctly, you may skip this module, but if you do not, you will continue with the activities of this module.

1. Helen walks to school every day. One afternoon, when she was on her way back to their house, it rained very hard. "Aha! It is good that I brought with me my umbrella", she said. The rain is an example of _____.
   A. solid B. liquid C. gas D. solid and gas
2. A ripe mango is <u>yellow</u>. Which characteristic of solid determines the underlined word?
   A. size B. shape C. color D. texture
3. Which of the following materials is gas?
   A. smoke B. water C. alcohol D. paper
4. Which of the following is NOT true?
   A. Solid has weight and occupies space.
   B. Liquid flows and takes the shape of the containers.
   C. Gas is everywhere. It has weight and it occupies space.
   D. Liquid and gas have no weight but occupy space.
5. Which of the following statement is true?
   A. Solid objects and materials can be classified as to color, size, shape, and texture.
   B. Gas cannot fill the shape of the container.
   C. Liquid flows and has no weight.
   D. Solid, liquid, and gas can be classified according to shape and odor only.

Lesson 1

Objects and Materials Around Us and their Properties

Matter Around Us

By: Amor M. Garcia

Solid, Liquid, Gas
These are things around us
We can see them; we can touch them
And sometimes we can only feel them

Solid, Liquid, Gas, we see them every day
We feel them every day; they are lovely
Cause they differ in many ways

They differ in size; they differ in shape.
They even differ in color, especially their texture
Solid, Liquid, Gas… they are useful for us

Let us observe them and learn more about them.

What's In

There are different objects and materials found at home, in school, or the community. They are called matters. They can be solid, liquid and gas.

Name five (5) objects or materials that can be found at home. Write them in the box below and say something about their characteristics. Do this on a separate piece of paper.

What's New

Everything around us is matter. Matter is anything that has weight and takes up space. Everything you can see and touch is made up of matter. Matter comes in different shapes and sizes.

Why does matter come in different sizes and shapes? Well, that is because matter comes in three forms: solid, liquid, and gas. Solid, liquid, and gas will fill up space in different ways depending upon how big, small, long, or short the object is.

Let us explore more about them and their properties!

What is It

Examples of solids are flowers, tables, and chairs. Solids have shape, color, texture, and size.

Liquids are objects that we can also touch and see. They change shape depending on the container. It has weight. Water is a famous example of liquid.

Gas is another form of matter. It cannot be seen but is around us. We can feel it. Gas has weight and occupies space. It has no shape or size. The air we inhale is a gas.

What's More

Everything around us is matter. You can classify them into solid, liquid, and gas.

pencil

juice

smoke from the car

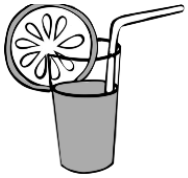
Air coming out from the balloon

water container

milk in a glass

Which object is solid? _____
Which object is liquid? _____
Which object is gas? _____

Write S if the object is solid and L if the object is liquid and G if it is gas.

_____1. Sweet juice 

_____2. An empty glass 

_____3. A kilo of nail 

_____4. Creamy milk 

_____5. Air in the balloon 

What I Have Learned

- ✓ Matter is everything around us.
- ✓ It has mass and weight.
- ✓ Three forms or states of matter are Solid, Liquid, and Gas

What I Can Do

Objects and materials found at home are matter. Can you identify them? Draw three (3) examples for each phase.

Solid	Liquid	Gas

Answer the following questions.

1. What state of matter is the object or material that you draw?

_____

Assessment

Direction: Write T if the statement is true and F if it is false.

_____1. Solid has no definite shape and weight.

_____2. A solid can be described through its shape, color, size and texture.

_____3. Liquid has the ability to flow.

_____4. Gas occupies the space of the container.

_____5. Liquid and gas take the shape of the container.

Additional Activities

Directions: Compare the following states of matter. Write Yes if the statement will answer the state of matter and No if it is not.

Description	Solid	Liquid	Gas
1. It can be touched.			
2. It can be seen.			
3. It has definite shape.			
4. It has volume.			
5. It takes the shape of the container.			

Lesson 2

Solid Objects or Materials and their Characteristics

What's In

In the previous lesson, you have learned that there are three forms or states of matter namely solid, liquid, and gas. In this lesson, you will learn more about solid. Solid has different observable characteristics. It has shape, size, color, and texture.

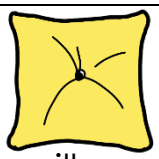
Solids have different shapes such as round, square, rectangle, triangle, and oblong. They have different colors, too. They can be red, blue, yellow, orange, green, brown, gray, white, and black.

Solid has its size. You can measure their length and width using a ruler for small objects, and a meter stick for longer objects. It may have similar and different sizes, such as tall, long, short, big, and small.

You can describe the objects and materials' texture through your sense of touch, whether it is rough, hard, and soft.

What's New

Describe how these of objects were classified. Try this.

Object	Color	Shape	Size	Texture
 ball	red	circle	small	rough
 book	green	rectangle	big	smooth
 box	blue	square	small	smooth
 wall clock	black	circle	big	smooth
 pillow	yellow	square	big	smooth

For Example:

The color of the ball is red. The ball is small. Its shape is a circle. It is rough when you touch it.

Now it is your turn!

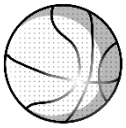
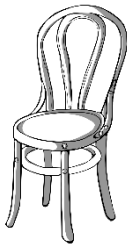
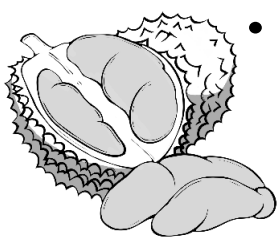
Look for solid materials around you. List them below and tell their observable characteristics. Do this in your notebook.

OBJECT	COLOR	SHAPE	SIZE	TEXTURE

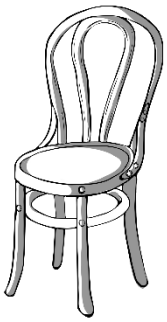
What is It

Activity 1. Connect the solid in Column A with its opposite size in Column B.

Column A

1. 
2. 
3. 
4. 
5. 

Column B

A 

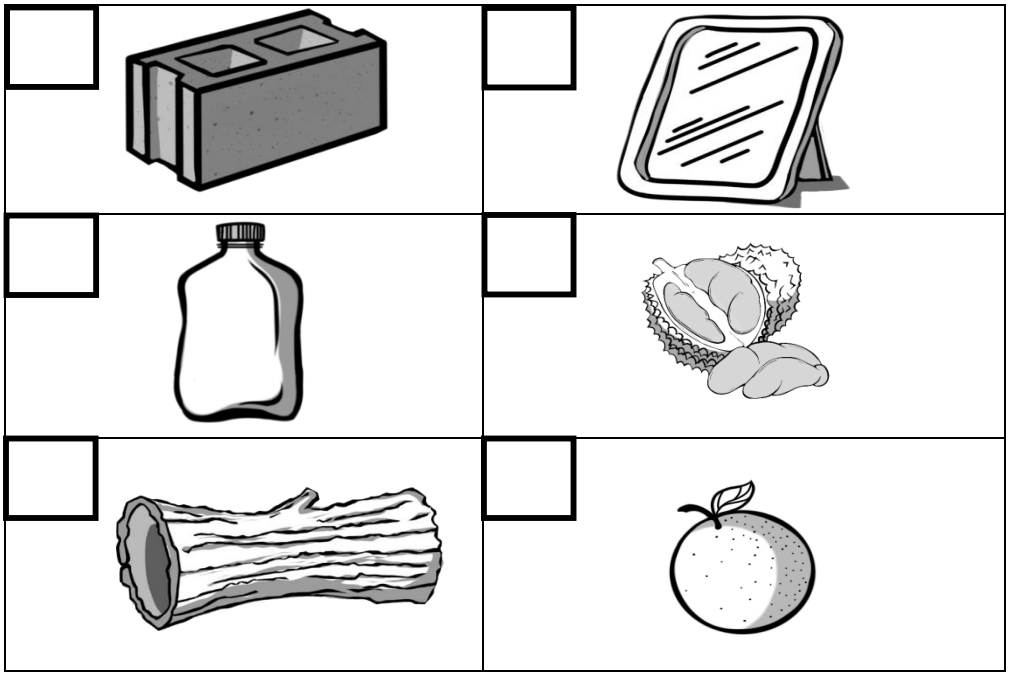
B 

C 

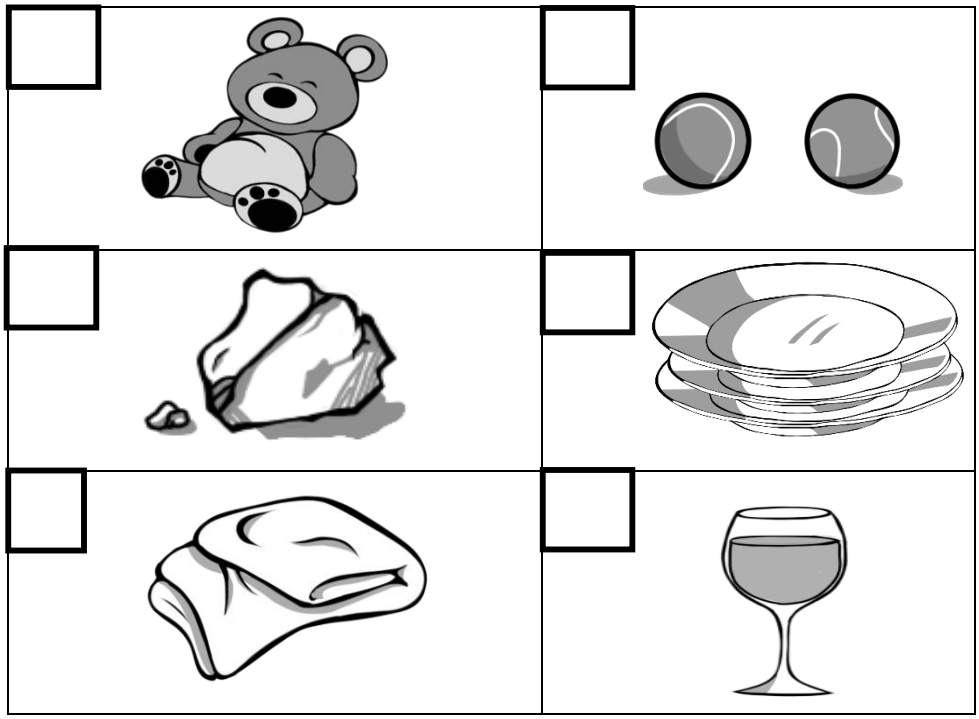
D 

E 

Activity 2. Mark (/) if the object is **Rough** and (x) if the object is **Smooth**.



Mark (/) if the object is **Hard** and (x) if the object is **Soft**.



Answer the question:

1. What are the observable characteristics of solid objects?

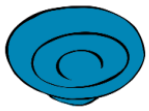
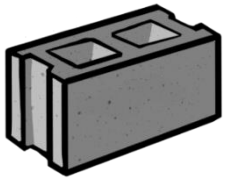
_____

_____

What's More

Let us master this!

Direction: Identify the shape, color, size, and texture of the following objects. Write your answer in the space provided.

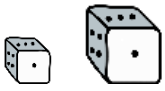
1. 	Shape	
	Color	
	Size	
	Texture	
2. 	Shape	
	Color	
	Size	
	Texture	
3. 	Shape	
	Color	
	Size	
	Texture	
4. 	Shape	
	Color	
	Size	
	Texture	
5. 	Shape	
	Color	
	Size	
	Texture	

What I Have Learned

- ✓ Solids have certain color, size, shape, and texture.
- ✓ Solids have different colors. They can be red, blue, yellow, orange, green, brown, gray, white, and black.
- ✓ Solids have different shapes, such as round, square, rectangle, triangle, and oblong.
- ✓ Solids have different sizes such as big, small, long, short and tall.
- ✓ Solids have texture. It can be smooth or rough.
- ✓ Solid can be classified according to color, size, shape, and textures.

What I Can Do

Directions: Name and identify the color, shape, size and texture of the objects.

Object	Name	Color	Shape	Size	Texture
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

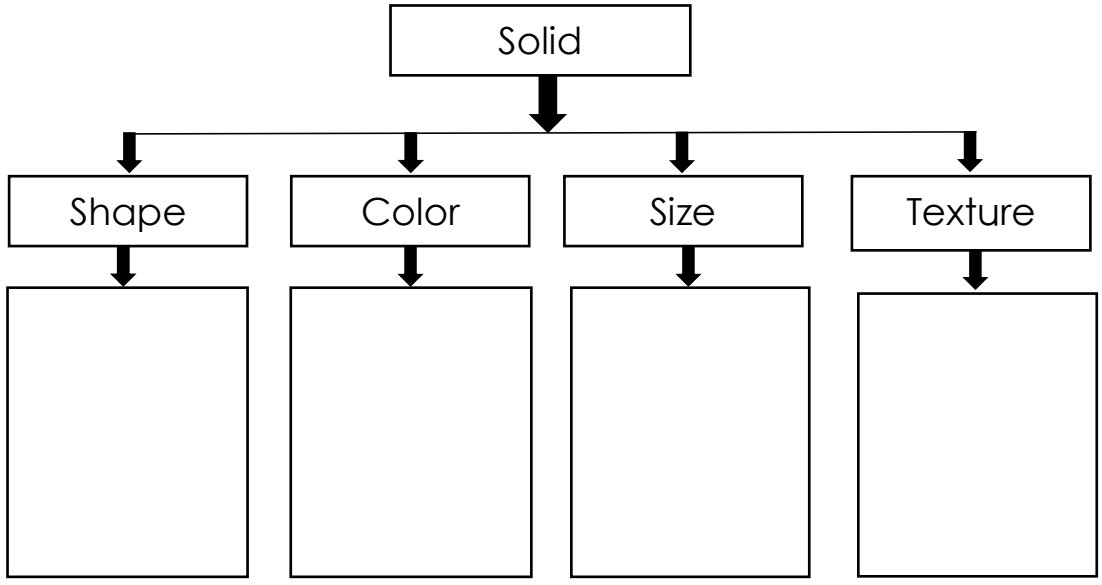
Assessment

Directions: Match the characteristics of solid in Column A to Column B. Choices in Column B can be used twice. Write the letter of your answer in the space provided.

Column A	Column B
_____1. round table	A. size
_____2. green mango	B. shape
_____3. rough surface	C. color
_____4. big notebook	D. texture
_____5. soft pillow	

Additional Activities

Directions: Write the different observable characteristics of solid to complete the graphic organizer. Do this in your notebook.



Lesson 3 Liquid Objects or Materials and their Characteristics

What's In

Liquid is an object that occupies space and takes the shape of a container. It can be poured and flow fast or slow.

In this lesson, you will learn the different observable characteristics or properties of liquids.

Notes to the Teacher

Learning by doing is exciting. Be guided with an adult or your parents for safety measures. You may assist the learner in coming up with his/her observation.

Observe the drawing.

Picture 1

Picture 2

How does the liquid flow?

Picture 1 _____

Observe the different characteristics of liquid. Record or write your observations

Let us try these.

1. Pour water into a glass.
2. Fill in a basin with water.

Picture 2 _____

Answer the following questions:

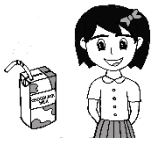
1. What have you observed when you poured water on a glass? _____
2. What have you observed when you fill in a basin with water? How did you do it?_____
3. When you compare the shape of the water in a glass and in a basin. What have you observe? _____

What's New

Liquids come in different colors, like black, red, and yellow. Some liquids are colorless. They also vary in taste. Some are sweet, sour, bitter, or salty. They have good smell like perfume, syrup, shampoo, and fabric conditioner, others have bad odor like fish sauce and vinegar. Some liquids are odorless. Let us do this!

Direction. Put a checkmark on its appropriate column.

A. Taste Chart

Liquids	Taste			
	Sweet	Sour	Bitter	Salty
Vinegar 				
Chocolate milk 				
Ampalaya soup 				
Soy sauce 				
Lemon juice 				

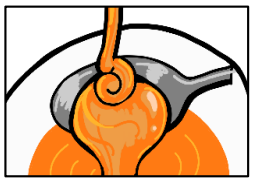
B. Smell or odor Chart

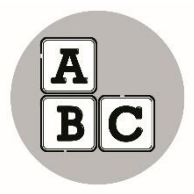
Liquids	Smell or odor	
	Good	Bad
Perfume 		
Gasoline 		
Bleach 		
Fabric conditioner 		
Cologne 		

What is It

You can classify liquids according to their observable characteristics. You can group them according to color, shape, taste, and smell.

Record your observations. Write your answer in the space provided for you.

Name of Liquid	Descriptions			
	Color	Shape	Taste	Smell
 Soy sauce				
 Honey				
 Fish sauce				
 Perfume				
 Shampoo				



What's More

Liquid has the ability to flow. Some liquids flow fast while some flow slow. Based on your observation, classify the following examples of liquid on these particular characteristics.

oil	cola	honey	soy sauce	ketchup

Flows fast

Flows slow

What I Have Learned

- ✓ Liquid takes the shape of the container
- ✓ Liquid can be poured and flows fast or slow.
- ✓ Liquids have different colors, like black, white, and yellowish. Some are colorless.
- ✓ Liquids vary in taste. Some are sweet, sour, bitter, or salty.
- ✓ Liquids have good or bad smells or odors. Some are odorless.

What I Can Do

Describe how the following materials flow.

Direction: Choose your answer in the word bank to complete the sentence.

Word Bank:	whiter	sweeter	faster

caramel

cough syrup

water

milk

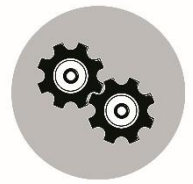
honey

1. Water flows _____than the milk.
2. Honey taste _____than the cough syrup.
3. Milk is _____than the caramel.

Assessment

Direction: Supply the missing word. Write the word on the blank to complete the paragraph.

Liquid takes the shape of the _____. It has ability to flow _____or _____. Furthermore, liquids have different colors, like black, white and yellow. The taste can be _____, _____, _____ or salty. Its smell can be _____or bad.



Additional Activities

Direction: Blacken the box if the statement describes liquid.

☐ 1. It has the ability to flow.

☐ 2. It has no definite shape.

☐ 3. It has different colors.

☐ 4. It takes the shape of the container.

☐ 5. It has rough texture.

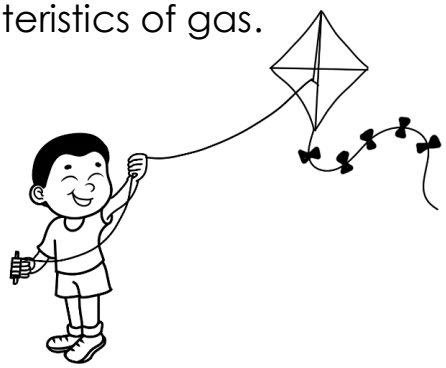
Lesson 4

Gaseous Objects or Materials and their Characteristics

What's In

Air is around us. Air is an example of a gas. We cannot see it, but we can feel and smell it. We see object moves. In this lesson, you will learn different observable characteristics of gas.

Have you tried flying a kite?



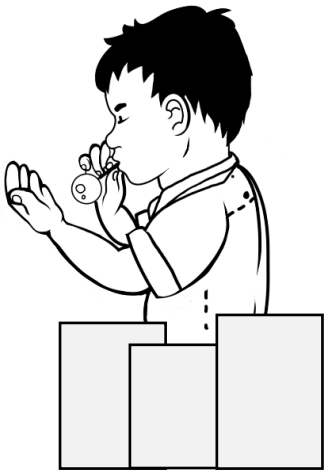
How did the kite fly? _____

What did the kite need to fly? _____

What's New

Gas is another state of matter. It does not have a definite shape and size. It spreads out to fill its container. It cannot be seen but can be felt.

Study the picture.



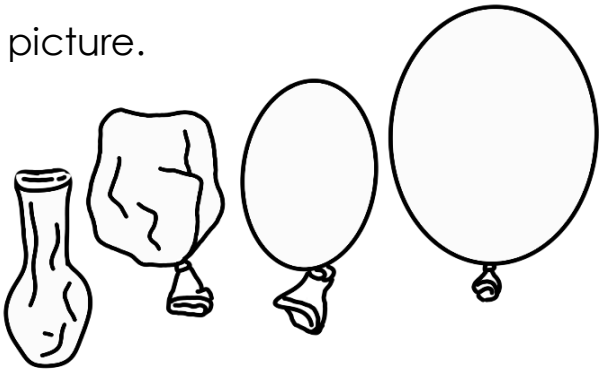
Answer the following questions:

1. What was the boy doing? _____
2. How did he do it? _____
3. What did you discover? _____

What is It

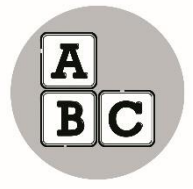
Gas has no definite size and shape, but it takes the shape of the container. Air fills and moves freely in the container.

Observe the picture.



It is your turn to do this!

1. Blow air in the balloon or plastic bag. What happened?
2. Why do you think it happened?



What's More

Direction: Put a checkmark on the object that can be filled with air.

1. tire
2. pitcher
3. gas tank
4. rubber ball
5. sponge

What I Have Learned

- ✓ Gas does not have a definite shape and size.
- ✓ Gas spreads out to fill its container.
- ✓ Air fills and moves freely in the container.

What I Can Do

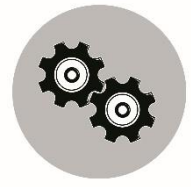
Direction: Write **Yes** if the statement is correct and **No** if it is not.

_____1. Gas does not have a definite shape and size.
_____2. Air does not occupy space.
_____3. We can see the air around us.
_____4. Air moves freely in the container.
_____5. We can keep the air inside our pockets.

Assessment

Directions: Fill in the missing word. Write the word in the blank to complete the paragraph.

Gas is another state of _____. It does not have definite _____and _____. It spreads out to fill its _____. Moreover, gas cannot be seen but we can _____it like the air.



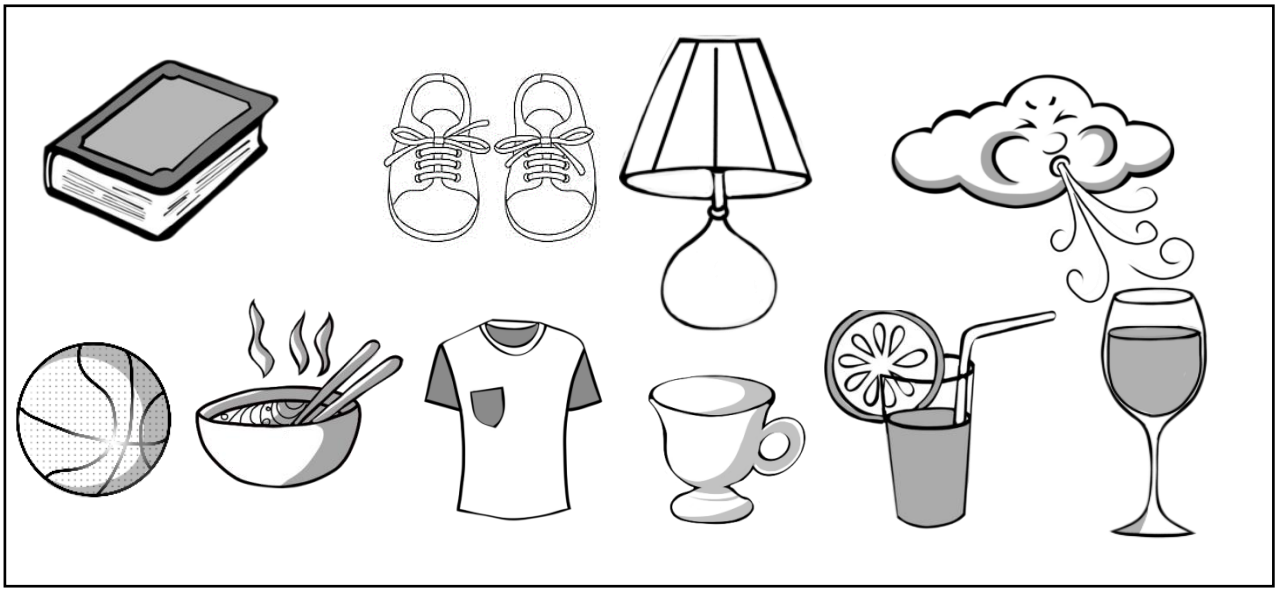
Additional Activities

Directions: Look at the words in box. Check those that you think are example of gas.

Inflated balloon	oxygen tank	thin book
block of wood	marbles	steam
pineapple juice	fire extinguisher	air pump

Assessment

Group the following objects below. Draw and write their names on the proper column.



Solid	Liquid	Gas

1. How did you classify the objects?

Additional Activities

Activity I. Direction: Use your crayons. Color the word RED if it is a solid, BLUE if it is a liquid, and YELLOW if it is a gas.

ballpen	lemon juice	scissor	ink	bath soap	oil
eye glass	oxygen	smoke	vinegar	plastic balloon	

Activity II. Classify whether the object is a liquid or a gas. Write the word Liquid or Gas in the opposite box. Do this in your notebook.

Object	Classification
1. Balloon 	
2. Flowing water 	
3. Smoke 	
4. Sunkist Cola 	
5. LPG 	

Answer Key

B. Smell or odor Chart

Liquids	Smell or odor	
	Good	Bad
Perfume	/	
Gasoline	/	
Bleach	/	
Fabric conditioner	/	
Cologne	/	

Lesson 4 **Assessment**

1. Matter
2. Shape
3. Size
4. Container
5. Feel

Assessment

Group the following objects below. Draw and write their names on the proper column.

Activity 1. Direction: Use your crayons. Color the word RED if it is solid objects. BLUE if it is liquid and YELLOW if it is a gas.

ballpen	lemon juice	scissor
ink	eye glass	oxygen
vinegar	plastic balloon	wind
oil	bath soap	smoke

Additional Activities

Directions: Look and mark check of the words in box that you think as an example of gas.

inflated balloon /	oxygen tank /	thin book	
block of wood	marbles	steam /	
pineapple juice	fire extinguisher /	air pump /	

LESSON 4

What' s More

Directions: Put a check mark on the object that can be filled with air.

1. tire /
2. pitcher
3. gas tank /
4. rubber ball /
5. sponge

What I Can Do

1. Yes
2. No
3. No
4. Yes
5. No

Lesson 2
What is it

Activity 3 Mark (/) if the object is **HARD** and (x) if the object is **SOFT**

Assessment
Matching type

1. B
2. C
3. D
4. A
5. D

Additional Activities

Shape
round, rectangle, oblong, square, triangle

Color
White, black, yellow, red, green, blue, violet, orange, gray, brown

Size
Small, big, tall, long, short

Texture
rough, smooth, hard, soft

LESSON 3
What's New

Direction. Put a check mark on its appropriate column.

A. Taste Chart

	Taste			
Liquids	Sweet	Sour	Bitter	Salty
Vinegar		/		
Chocolate milk	/			
Ampalaya soup			/	
Soy sauce				/
Lemon juice		/		

What's More

Let us master this!

Direction: Identify the shape, color, size and texture of the following objects. Write your answer on the space provided.

1.	Shape	round
	Color	blue
	Size	small
	Texture	smooth
2.	Shape	triangle
	Color	brown
	Size	small
	Texture	rough
3.	Shape	rectangle
	Color	gray
	Size	big
	Texture	rough
4.	Shape	round
	Color	white
	Size	big
	Texture	smooth
5.	Shape	rectangle
	Color	green
	Size	big
	Texture	smooth

What I Know

1. B
2. C
3. A
4. D
5. A

LESSON 1
What's In

Answer may vary depending on the answers of the learners

What's More

Questions:
Which object is solid?
Pencil, water container

Which object is liquid?
Juice, milk in a glass

Which object is gas?
Smoke from the car, air coming out the balloon

Write **S** if the object is **solid** and **L** if the object is **liquid** and **G** if it is **gas**.

1. L
2. S
3. S
4. L
5. G

LESSON 2
What's New
Example :
The color of the ball is red. The ball is small. Its shape os a circle. It is rough when you touch it

Look for Solid materials around you. List them and tell its observable characteristics

Object	Color	Shape	Size	Texture

The answer will differ depending upon the learner.

What is it

Activity 1. Connect the solid in column A with its opposite size in column B.

1. E
2. D
3. B
4. A
5. C

What I Can Do

Answer may vary depending on the learners

Assessment

Direction: Write **T** if the statement is **true** and **F** if it is **false**.

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

Additional Activities:

Directions: compare the following states of matter. Write **YES** if the description will answer the state of matter and **No** if it is not.

Description	Solid	Liquid	Gas
1. It can be touched	Yes	Yes	No
2. It can be seen	Yes	Yes	No
3. It has definite shape	Yes	No	No
4. It has volume	Yes	Yes	Yes
5. It takes the shape of the container	No	Yes	Yes

Lesson 2
What is it

Activity 2 Mark (/) if the object is **ROUGH** and (x) if the object is **SMOOTH**

/ x

X /

/ x

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