3
Grade

(GCED)

Global Citizenship Education

Lesson Exemplar

SCIENCE

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Learning Area: Science

Grade Level: 3

Quarter: 1st

GCED Domain/s: Cognitive, Socio-Emotional, and Behavioral

GCED Indicator/s:

Cognitive

D1.1.a Recognize complex situations or problems

Socio-Emotional

D2.1.e Commit to assume responsibility, mutual assistance, cooperation, and collaboration in various contexts in the world

Behavioral

D3.1.d Initiates actions about local, national and global issues (i.e advocates for peace-oriented values, security and stability) which can be taken individually and collaboratively.

GCED Theme and Topic:

T.3.3 Environment Practices and Behaviors

Enhanced Content Standard/s:

Ways of sorting materials and describing them as solid, liquid or gas based on observable properties

Enhanced Performance Standard/s:

Group common objects found at home and in school according to solids, liquids and gas

Time Allotment:

60 minutes

TABLE OF CONTENTS

CLASSIFYING SOLID, LIQUID AND GAS

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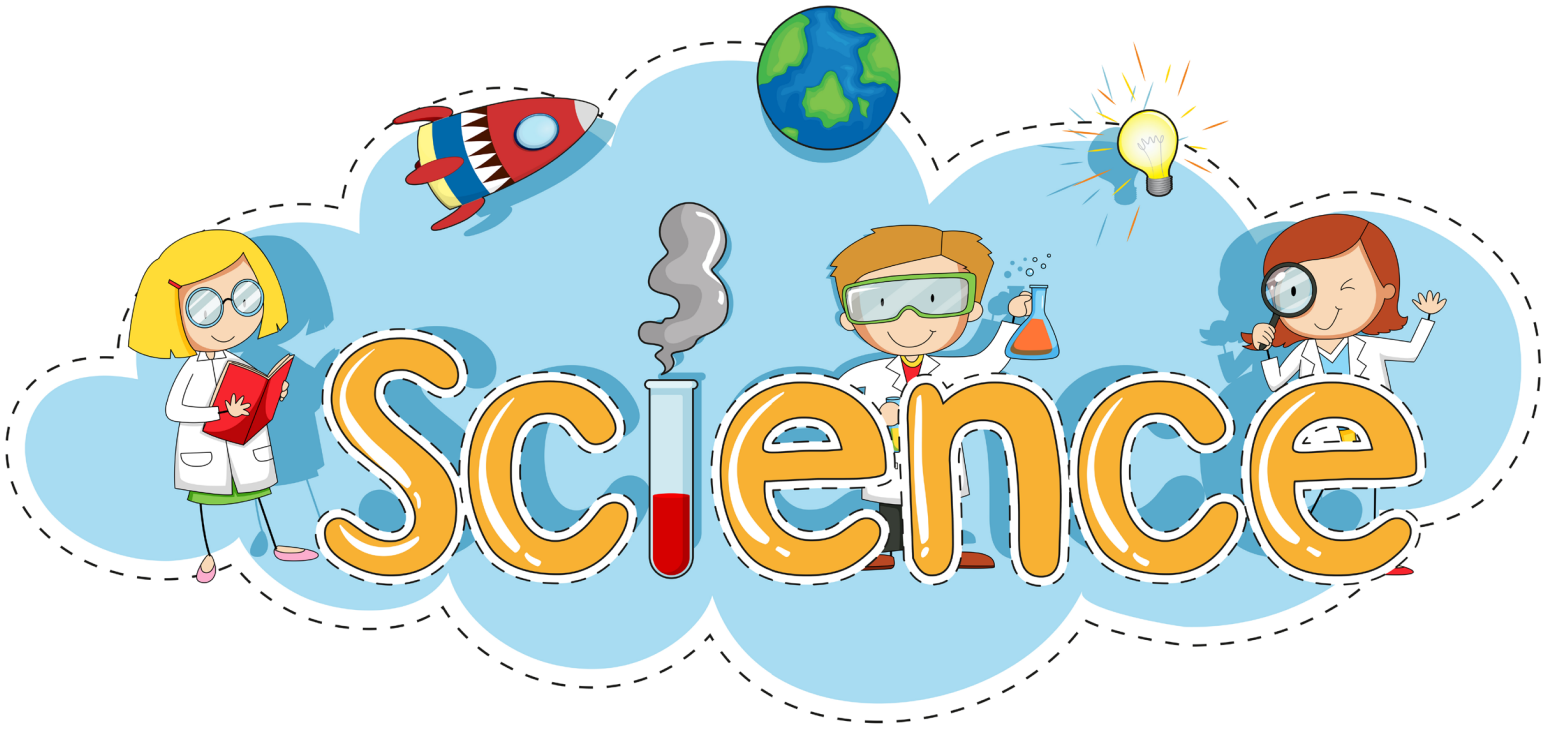
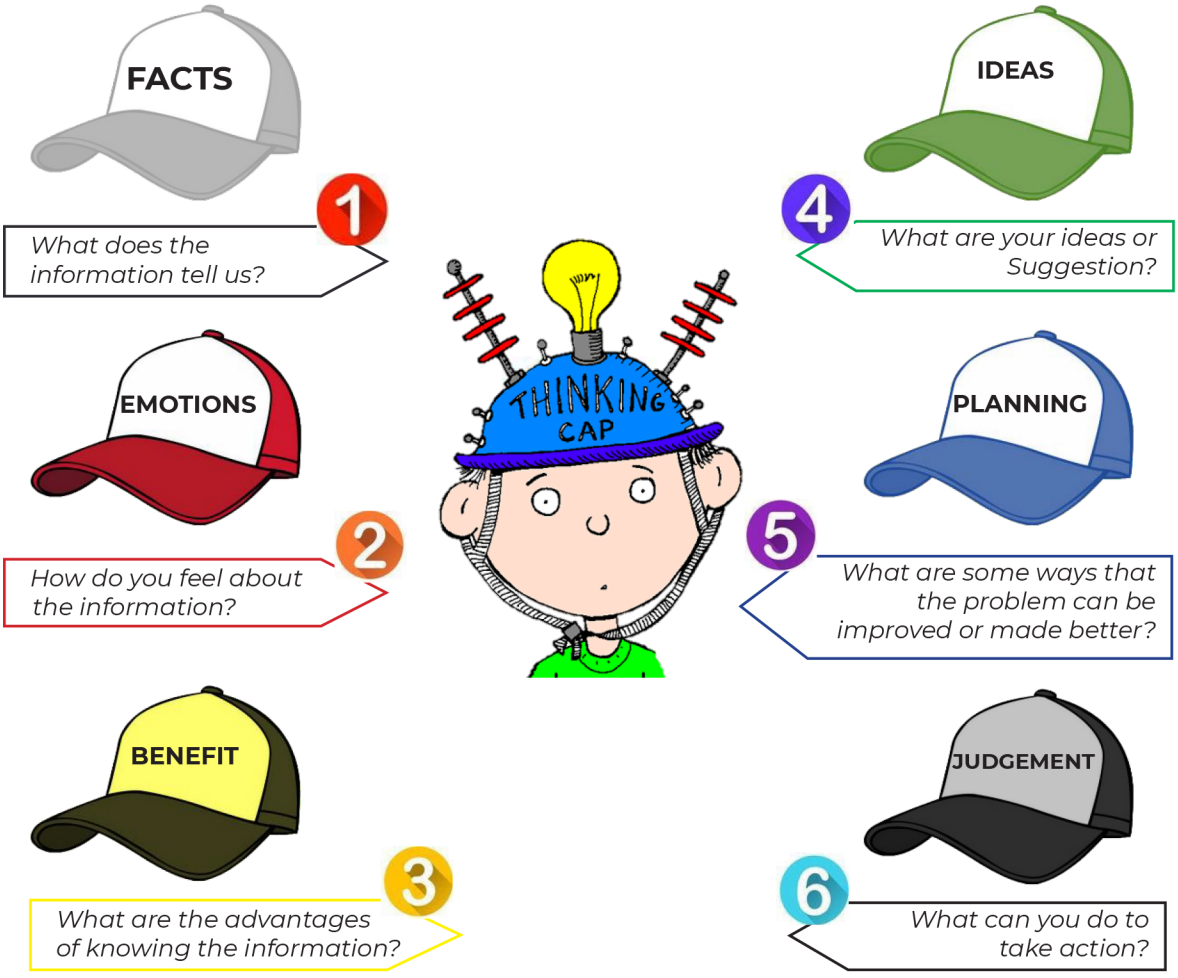


LESSON INTRODUCTION

Welcome to the Science Grade 3 Global Citizenship Education Lesson Exemplar on Classifying Objects and Materials!

In this module, you will learn how to classify solid, liquid, and gaseous objects and materials based on observable characteristics (S3MT-lc-d-2). As a global citizen, you will also be able to find ways on how to properly manage these materials and initiate actions to conserve our environment. You can use the six thinking hats to guide you in understanding the lesson:



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If you are having difficulty in answering the questions in this module, do not hesitate to approach and ask help from your teacher or learning facilitator. It is important to remember that you are not alone.

Keep going!

LESSON OBJECTIVES

(WHAT I NEED TO KNOW / ALAMIN)

At the end of the lesson, the pupils are expected to:

1. Identify the characteristics of objects and materials at home, in school, and in the surroundings;
2. Describe the observable characteristics of solid, liquid and gas as to color, size, shape, and texture; and
3. Classify solid, liquid, and gaseous objects and materials based on observable characteristics

PRETEST

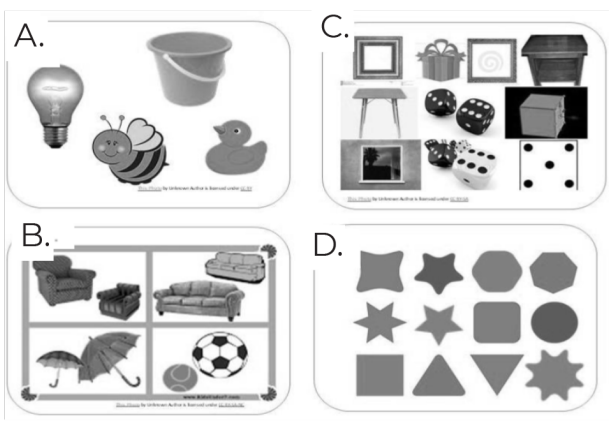
(WHAT I NEED TO KNOW / SUBUKIN)

Directions: Read and analyze each question carefully. Write the letter of the correct answer on your answer sheet.

1. Matter is anything that occupies space and has mass. In which state of matter can you classify the ball in the picture below?

A. solid
B. liquid
C. gas
D. plasma

2. Which of the following solids are grouped according to size?



3. Julia needs to carry the things she bought from the store. Her older brother wants to help her carry the heavy things. One bag contains two kilos of rice and the other bag contains half a kilo of mangoes. Which of these bags is heavier?

A. the bag of rice
B. the bag of mangoes
C. both of the bags
D. none of the bags

PRETEST

(WHAT I NEED TO KNOW / SUBUKIN)

4. Jaedane has ½ liter of water and placed in different containers. He was surprised that all of the water fit in these containers.



How will you explain to him what happened to water? I will tell him that.

A. Liquids have definite size.
B. Liquids have definite shape.
C. Liquid have volume.
D. Liquid take the shape of its container

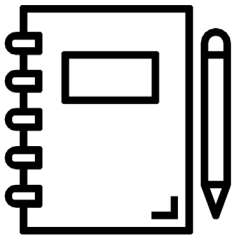
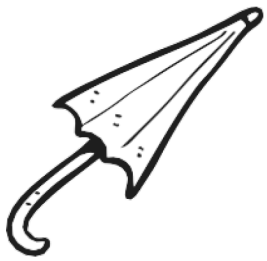
5. How would you classify this object based on the following characteristics?

Object	Characteristics				
	Can Be Weighed	Occupies Space	Fixed Shape	Fixed Volume	Can Be Compressed
1	✔	✔	✔	✔	✘

LESSON PROPER

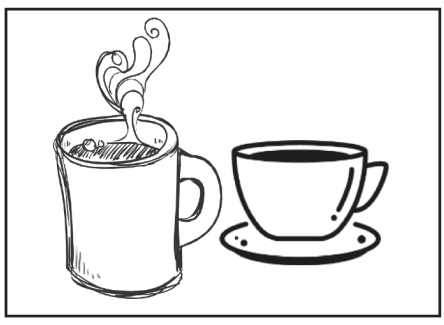
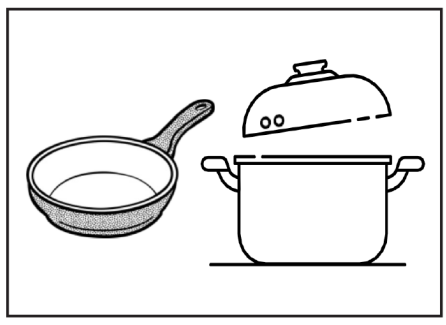
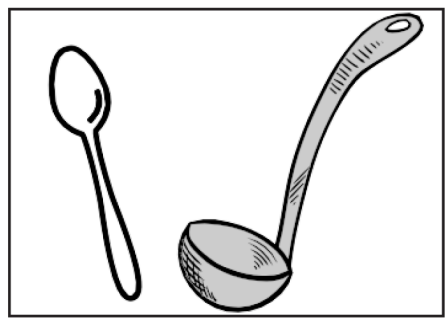
REVIEW (WHAT'S IN / BALIKAN)

Let's look at the following pictures. What do you notice about their shapes? Write down the shape of the following objects found at the school.

One of the characteristics of objects is that they have different **shapes**. They can be square, rectangle, triangle, circle and others have irregular shapes. We can group these objects according to their shape.

Objects also have different sizes. Color the BIG object **green** and the SMALL objects to **blue**.

Objects and materials can also be described by its size. To find out the exact measurement, use a measuring tool like a ruler or meter. It measures the size in terms of inches (in) or meters (m).

LESSON PROPER

REVIEW (WHAT'S IN / BALIKAN)

Look at the following balancing scales. Compare the objects by filling in the blanks to make the statement true using the words **heavier**, **lighter** or **equal**.

The bananas are _____ than grapes.

The oranges have _____ weight to the pineapple.

The strawberry is _____ than apple.

Objects or materials also described by how much they weigh. **Weights** can be heavy or light and can be measured in terms of pounds (lbs.), by grams (g) or kilograms (kgs).

LESSON PROPER

REVIEW (WHAT'S NEW / TUKLASIN)

Look around you!

Everything in our environment is made of matter. Matter is defined as anything that has mass and occupies space. Matter makes up everything you can see and touch. It is available in different shapes and sizes.

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Are all matter the same?

A **liquid**, such as water flowing from the falls, is an example of matter. It has mass and occupies space.

Matter can also be a **solid**, such as the rocks and soil surrounding the falls. It has mass and takes up space.

A **gas**, such as water vapor, is also a matter. When water turns to water vapor and rises due to heat, it is carried in the air, which is a mixture of gases. It has mass and occupies space.

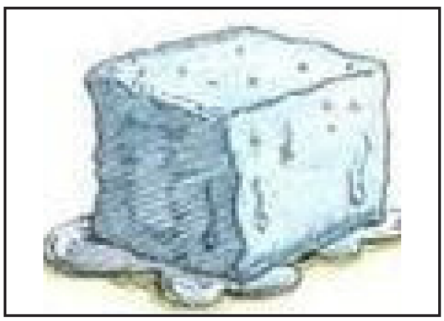
Activity 1: States of matter and its characteristics

Compare the following objects. Write **Yes** if the statement will describe the objects and **No** if it is not. Then identify what state of matter they belong.

Object	Description	Yes / No	State of Matter (Solid, Liquid, Gas)
	Can it be touched? Can it be seen? Does it have a definite shape? Does it have volume? Does it take the shape of its container?	_____ _____ _____ _____ _____	
	Can it be touched? Can it be seen? Does it have a definite shape? Does it have volume? Does it take the shape of its container?	_____ _____ _____ _____ _____	
	Can it be touched? Can it be seen? Does it have a definite shape? Does it have volume? Does it take the shape of its container?	_____ _____ _____ _____ _____	
	Can it be touched? Can it be seen? Does it have a definite shape? Does it have volume? Does it take the shape of its container?	_____ _____ _____ _____ _____	

Activity 2: Matter scavenging hunt

Look for the example of each state of matter found at home or in school. List their names in the boxes below.



SOLID

LIQUID

GAS

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Which state of matter did you observe most often?
Which state of matter did you observe least often?

Activity 3: CLASSIFYING MATTER Classifying matter

Classify the following objects or materials as to solid, liquid and gas. Choose the letter of the best answer.

A. Solid **B. Liquid** **C. Gas**

1. Ketchup **2. Pencil** **3. Smoke**

4. Bag **5. Vinegar**

LESSON PROPER

DISCUSSION (WHAT IS IT / TALAKAYIN)

Characteristics of Solid

Solid is one of the states of matter. We use our senses to describe its size, shape, color and texture. Solid objects such as rocks, balls, and blocks are examples of solid matter. Solids have different characteristics:

- Solids are noticed by their color, size, shape, and texture.
- Solids come in different colors such as red, blue, yellow, orange, green, brown, gray, white, and black.
- Solids come in different shapes, such as round, square, rectangle, triangle, and oblong.
- Solids come in different sizes, such as large, little, long, short, and tall,
- They have texture. It can be smooth or rough surface.

Characteristics of Liquid

- Liquid does not have a fixed shape. It takes the shape of its container.
- Liquid can be poured and can flow quickly or slowly.
- Liquids come in different colors, including black, white, and yellowish. Some of them are completely colorless.
- Liquids come in different flavors. Sweet, sour, bitter, or salty are some of the flavors.
- Liquids have a pleasant or unpleasant odor. Some have no odor.

Characteristics of Gas

- Gas does not have a definite shape and size.
- The gas expands to fill the container.
- In the container, air fills and moves freely.

The table below summarizes the differences between solids, liquids and gases.

State of Matter	Characteristics				
	Can Be Weighed	Occupies Space	Occupies Space	Fixed Volume	Can Be Compressed
Solid	✔	✔	✔	✔	✘
Liquid	✔	✔	✘	✔	✘
Gas	✔	✔	✘	✘	✔

LESSON PROPER

ENRICHMENT ACTIVITIES (WHAT'S MORE / PAGYAMANIN)

Cognitive
D1.1.a- Recognize complex situtions or problems

Activity 4: 3Rs

Today, waste is a huge problem, affecting every part of our environment, from our waterways to our atmosphere, from our grassy fields to our forests, from our plants to our people. If we want to make a difference in the fight against waste and pollution, three of the best things we can do is to reduce, reuse and recycle.

Reducing. The most suggested method is to reduce the use of materials. Use as little as possible. We need to keep our natural resources, protect the environment, and save money. Conserving our electricity, water and food are some of the best ways to reduce.

Reusing. Instead of throwing things away that you might not use anymore, why not give them to someone else? If a toy, piece of furniture or item of clothing can be fixed, do it, and then use it again.

Recycling. It is when you use the raw materials from something to make something else. For example, the glass, metal and paper from bottles, cans and cardboard can be used to make other products. When you recycle these items, they can become new items.

This is the Payatas dumpsite. It is one of the landfills where collected garbage and trash from Metro Manila are dumped (or unloaded).

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Now, can you think of ways that you can do to help solve our garbage problem?

Let's find out the things we throw away at home and school. Can you classify them according to the trash bins below?

Color the ◯ **blue** if the object is made of paper, **yellow** if it is made of plastic, **green** if it is made of glass and **brown** if it is organic.

1. old newspapers ◯
2. juice wrapper ◯
3. fruit-peelings ◯
4. plastic straws ◯
5. broken glass ◯
6. left-over food ◯
7. plastic cups ◯
8. cooking oil bottles ◯
9. used paper bag ◯
10. broken toys ◯

LESSON PROPER

GENERALIZATION (WHAT I HAVE LEARNED / ISAISIP)

MATTER

SOLID	LIQUID	GAS
Three things that I know about solids 1._____ 2._____ 3._____ Examples of solids 1._____ 2._____ 3._____	Three things that I know about liquids 1._____ 2._____ 3._____ Examples of liquids 1._____ 2._____ 3._____	Three things that I know about gases 1._____ 2._____ 3._____ Examples of gases 1._____ 2._____ 3._____

LESSON PROPER

REFLECTION (WHY IS IT MEANINGFUL AND RELEVANT / ISAPUSO)

Social-emotional
D2.1.e - Commit to assume responsibility, mutual assistance, cooperation, and collaboration in various contexts in the world.

Fill up your Zero Waste Promise below and tell your friends to join you in taking action to make our world zero-waste!

I, _____ promise to
REDUCE by _____
REUSE by _____
RECYCLE by _____
for a healthy and beautiful community.

LESSON PROPER

APPLICATION (WHAT I CAN DO / ISAGAWA)

Activity 5: We can all make a BIG impact with small easy ACTIONS

Let's try out a zero-waste lifestyle this week. Here are the 5-day challenges - complete the tasks and see how zero-waste you can be!

Behavioral
D3.1.d- Initiate actions about local, national and global issues which can be taken individually and collectively.

Use the table below to track your progress every day.

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Reduce					
Reuse					
Recycle					
Points					

Total points:_____

When you finish the tasks, combine your points collected within the 5- day challenge to get your total points. You will get this certificate after you got a passing score of:

Ready to Lead: 10-14 points

Rising Star: 15-19 points

Role Model: 20 pts.- above

ASSESSMENT

TAYAHIN

Directions: Read and analyze each question carefully. Write the letter of the correct answer on your answer sheet.

1. Aling Teresita went to the grocery. She wants to classify the things she bought in a box.

Can you help her identify the state of matter of each box?

A. Box 1-solid, Box 2-liquid, Box 3-gas
B. Box 1- liquid, Box 2-solid, Box 3-gas
C. Box 1-gas, Box 2-liquid, Box 3-solid
D. Box 1-solid, Box 2-gas, Box 3-liquid

2. Which form of matter does not take the shape of its container?
   A. solid B. liquid C. gas D. plasma

3. You blow up a balloon. Is it heavier or lighter than the uninflated balloon?
   A. heavier
   B. lighter
   C. equal weight
   D. both has no weigh

4. The state of matter that has no definite size or shape.
   A. solid B. liquid C. gas D. plasma

5. Which of the following is an example of solid?
   A. a candle
   B. ketchup
   C. balloon
   D. lemonade

ANSWER KEY

SUSI SA PAGWAWASTO

Pretest

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

Color the ◯ blue if the object is made of paper, yellow if it is made of plastic, green if it is made of glass and brown if it is organic.

1. old newspapers
2. juice wrapper
3. fruit-peelings
4. plastic straws
5. broken glass
6. left-over food
7. plastic cups
8. cooking oil bottles
9. used paper bag
10. broken toys

Activity 1

Object	Description	Yes/No	State of Matter (Solid, Liquid, Gas)
	Can be touched? Can be seen? Does it have a definite shape ? Does it have volume? Does it take the shape of its container?	Yes Yes Yes Yes No	SOLID
	Can be touched? Can be seen? Does it have a definite shape ? Does it have volume? Does it take the shape of its container?	Yes Yes Yes Yes No	SOLID
	Can be touched? Can be seen? Does it have a definite shape ? Does it have volume? Does it take the shape of its container?	Yes Yes No Yes Yes	LIQUID
	Can be touched? Can be seen? Does it have a definite shape ? Does it have volume? Does it take the shape of its container?	Yes Yes No Yes Yes	GAS

Activity 2 - Answers may vary

Activity 3

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

Activity 4 - Answers may vary

Assessment

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

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GRADE 3 SCIENCE GCED EXEMPLAR
FIRST QUARTER MODULE 1
Table of Specifications

PRE-TEST and POST TEST

ITEM NO.	LEARNING OBJECTIVES	QUESTION LEVELS						QUESTION TYPE
		R	U	AP	AN	E	C	
1 and 5	Classify solid, liquid, and gas-eous objects and materials based on observable characteristics							multiple choice
2 and 3	Identify the characteristics of objects and materials at home, in school, and in the surroundings							multiple choice
4	Describe the observable char-acteristics of solid, liquid and gas as to color, size, shape, and texture.							multiple choice

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