

1st QUARTER GRADE 3 REVISED STANDARDS ON MATTER

Learning Competency: Group common objects found at home and in school

Lesson Focus: Organizing Things At Home and In School

I. INTRODUCTION

Activating Prior Knowledge:

Ask the pupils:

1. What are the things found in your cabinet (or closet, or drawer)? Do you arrange them? How?
2. Where do you put your toys after you play with them?
3. How are the books in the library kept?

II. BODY

1. Presentation of the Key Question:

KQ: Why is it important to keep things organized?

2. Activity: Putting Things In Order

Preparation:

The day before the activity, assign the pupils to bring cut-out pictures of different things that are used at home.

Provide masking tape or adhesive tape.

3. Activity:

- a. In one line, write the following words on the blackboard in big bold letters: (Other rooms or descriptions may be used.)

BEDROOM STUDY ROOM KITCHEN LIVING ROOM GARAGE COMFORT ROOM

Provide enough space under each heading where the pupils will tape pictures of different materials.

Each heading describes a place or room found in a house.

- b. One by one, ask the pupils to show the pictures they brought. They will tape each picture under the correct heading. If there is not enough space for posting pictures anymore, another place where the pupils can put them under their respective grouping may be assigned.

Ask: "Why did you place the picture (describe) under that heading (name)?"

- c. Challenge the pupils to mix up the pictures, irrespective of the room. For example, put shoes under COMFORT ROOM, or pillow under KITCHEN.

Ask: "Is that proper? What will happen if you keep your shoes in the comfort room? Where should you place your shoes?"

- d. Ask: "How are things arranged at home? How are things arranged in school? Why is it important to keep things organized?"

III. CONCLUSION

1. In each of the following rooms or places, draw three objects that are commonly found there:
 - a. dining room
 - b. bedroom
 - c. library
 - d. clinic
 - e. living room
2. Match each object with the place where it should be most properly put:

<ol style="list-style-type: none">a. Gardenb. Toy boxc. Bookshelfd. Bedroome. Kitchenf. Toolboxg. Shoe rackh. Closeti. Pen holderj. Laundry room	<ul style="list-style-type: none">• Rubber ball• School uniform• Rubber shoes• Chopping board• Mattress• Water hose• Pens• Textbook• Laundry detergent• Hammer
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Learning Competency: Describe different objects based on their different characteristics

Lesson Focus: Properties of Materials and Their Uses

I. INTRODUCTION

Activating Prior Knowledge:

Preparation:

Prepare the following objects to show in class:

pencil handkerchief spoon

Hold up each object while stating the following sentences. The pupils will say TRUE or FALSE.

1. Pencil
 - This object is used for marking. (TRUE)
 - This object is used for eating noodles. (FALSE)
 - This object is used for writing letters. (TRUE)
2. Spoon
 - This object is used for writing. (FALSE)
 - This is used as paper weight. (FALSE, but someone might say TRUE. Ask why he/she said that. Encourage the pupil to justify his/her answer. Although it is not proper, on some situations the spoon may be used to keep paper from flying.)
 - This is used for sipping chicken noodle soup. (TRUE)
3. Handkerchief
 - This object is used for wiping away tears. (TRUE)
 - This is used for writing homework on. (FALSE)
 - This is used to hold water for drinking. (FALSE)

II. BODY

Presentation of the Key Question:

KQ: How are the uses of materials related to their properties?

1. List five materials that are used for drawing pictures.

Describe each.

Examples:

- Crayon – colorful, round (cylindrical), slim, and light; slides on paper and imparts color to paper

- Paint brush – slim body, with fine brush that adsorbs paint
- Paper – white (or another color) so it can be colored, with smooth surface

Why is each material used in drawing?

What happens if the material has different properties?

- What if crayon is colorless? Square and too big to grasp? Heavy? Scratches paper?
2. Complete the table below. The first column refers to the material, the second column is its property, and the third column is its use. The first one is given as example.

Material	Property	Use
Scissors	Sharp	Cuts things
Lamp		Brightens up dark rooms
Leather bag	Strong and durable	
Backpack		For carrying books
Rubber band	Stretchable	
Cotton fabric		Clothing

3. **“What a different world it would be.”**

Ask the pupils to describe possible scenarios: What could possibly happen if these things have different properties?

- Pillows are hard like marbles.
- Car wheels are square.
- Ice does not melt.
- The stove makes food cold.

III. CONCLUSION

Ask the pupils to share what they learned.

1. What happens if the properties of the common things we use are not the same?
2. Why is it important to know the properties of materials?

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Learning Competency: Describe ways on the proper use and handling of solid, liquid, and gas found at home and in school

Lesson Focus: Handling Solid, Liquid, and Gaseous Water

I. INTRODUCTION

Activating Prior Knowledge:

Ask the pupils to identify what is being described:

1. What is transparent (or colorless), odorless, and can be a refreshing drink after a long run during P.E. class? (*water*)
2. What comes in cubes, tubes, or even shaved—too cold to touch or taste, but particularly most wanted as a partner of juice drinks especially during hot summer days? (*ice*)
3. What hot “air” comes out of the kettle’s spout, when it is already whistling “I’m hot, so hot, get me out of here!” (*steam*)

II. BODY

1. Presentation of the Key Question:

KQ: What are the proper ways of handling solid, liquid, and gaseous materials?

2. Activity: Do a class demo of “Changes in the Physical State of Water.”

Materials: 2–3 ice cubes in 250-mL beaker

Alcohol lamp, match, or lighter

Tripod with wire gauze

Safety Guidelines: Put combustible materials safely away from the burning alcohol lamp. Do not allow pupils to crowd around you. They should stay at a safe distance from the demo table.

Use a potholder when holding the hot beaker. Show pupils how to properly handle water in its different physical states.

Procedure:

- a. Prepare the setup—put wire gauze on tripod, then place the beaker on top of the tripod.
- b. Before heating, ask the pupils to observe the ice cubes in the beaker.

What do they see?

(Beaker “sweats,” indicating water in air condenses on the cold glass; thin “smoke-like” trail of water vapor escapes the ice cubes)

What other things do they observe? (*Someone might say, “It is cold.” Ask, “How do you know?”*)

(Other observations: ice cube melts, pool of liquid increases)

- c. Light the lamp, and place it under the beaker.
What do they observe?
- d. Continue heating until all the ice has melted. Remove the alcohol lamp but do not blow off the flame.
What changes on the ice have they observed?
Is it safe to touch the beaker? (The bottom part will be hot. Unless you are sure that is safe for the pupils to touch the beaker, do not let them. You may assign someone to hold his/her hand over or near the beaker to feel the warmth.)
- e. Put back the alcohol lamp and continue heating until the water begins to boil.
What indicates that the water is boiling?
What do pupils observe?

III. CONCLUSION

In groups of fives, the pupils will discuss among themselves answers to the following:

1. What changes did water undergo?
2. What caused these changes?
3. How should each physical state of water be handled?
4. Why is it important to know about the physical states of matter?
5. Give examples of other forms of matter in solid, liquid, and gaseous states.

Ask a pupil from each group to report the answers to the questions in class.

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Learning Competency: Investigate the different changes in materials as affected by temperature

Lesson Focus: The Effect of Temperature on the Physical States of Matter

I. INTRODUCTION

Activating Prior Knowledge:

1. Give a short quiz. Tell the pupils to recall the activity on Changes in the Physical States of Water.
Materials needed: bond paper, crayons, pencil
2. Tell the pupils: You were asked to make keen observations. Now, on a sheet of bond paper, rearrange the words listed on the board according to their order of appearance, that is, from first to last.
 - Large bubbles
 - Steam
 - Ice
 - Beaker “sweating”
 - Ice in a pool of water

Number them 1 to 5; 1 is first, 5 is last. Opposite each word, draw what you observed. Leave enough space after each word so you can draw properly.

II. BODY

1. Presentation of the Key Question:

KQ: How are materials affected by changes in temperature?

2. Modeling Particles of Solids, Liquids, and Gases

Preparation:

First, show pictures of materials at different temperature conditions.

Examples: solid steel, molten steel, carbon dioxide gas (air), dry ice (solid carbon dioxide), liquid nitrogen, nitrogen gas (air)

- a. Divide the class into three groups. Assign each group a role to play—as solid, liquid, or gas.
- b. Each pupil will represent a particle of matter. Each group will be tasked to act out what happens when temperature in the room is changed to what the teacher will announce.
- c. Before the teacher starts, the groups will discuss to themselves what they think will happen to the particles of materials when the temperature is changed from room temperature to very high, or to very low. Discuss how they will present each condition.

- d. This activity may be done in the playground.
 - a. Each group will show proper formation. Say, "Class, the prevailing temperature right now is _____ (get the room thermometer reading.) Show us how the particles of your group should be arranged."
 - b. Call on each group to demonstrate what happens as the temperature changes. The following conditions: **40°C, 100°C, 0°C, -40°C** may be used.
 - c. Ask SOLID to change into LIQUID, LIQUID to GAS, GAS to LIQUID, and SOLID to GAS.

III. CONCLUSION

Encourage the pupils to describe their experiences from the activity.

- What did they learn?
- How do temperature changes affect the particles of materials?
- In real life, where do they see or experience these changes?

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