



GRADES 1 to 12
DAILY LESSON LOG

School:		Grade Level:	V	
Teacher:		Learning Area:	SCIENCE	
Teaching Dates and Time:	SEPTEMBER 12 – 16, 2022 (WEEK 4)		Quarter:	1 ST QUARTER

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I. OBJECTIVES	1. Describe changes in materials under different conditions. 2. Cite the conditions/factors that bring about changes in materials.				
A. Content Standards	Materials undergo changes due to oxygen and heat				
B. Performance Standards	The learner uses local, recyclable solid and/ or liquid materials in making useful products.				
C. Learning Competencies/Objectives Write the LC code for each	Investigate changes that happen in materials under the following conditions: 1 presence or lack of oxygen 2 application of heat S5MT-Ic-d-2				
II. CONTENT	Changes in Materials Due to Heat and Oxygen				
III. LEARNING RESOURCES					
A. References					
1. Teacher's Guide pages					
2. Learner's Material pages					
3. Textbook pages					
4. Additional Materials from Learning Resource (LR) portal					
B. Other Learning Resources					
IV. PROCEDURES					
	<p>What's In</p> <p>Physical changes are caused by forces like motion, temperature, and pressure. Chemical changes happen on a much smaller level. Most of these changes between molecules are unseen. Factors that affect the rate of chemical changes</p>	<p>What's More</p> <p>Directions: For the given activities, read and study the situations, then answer the follow-up questions.</p> <p>Activity 1 "Fire Out" Have you seen a fire or flame? If not, observe the fire in the picture below.</p>	<p>What's In</p> <p>Directions: Identify what will happen to the objects when heat is applied. Match the materials in column A to the products in Column B.</p> <p>A B</p> <p>1. fish A. charcoal 2. wood B. boiled egg 3. sugar C. dried fish 4. egg D. toasted bread</p>	<p>What I Can Do</p> <p>A. Directions: Study the following objects. Determine the by-product or result when the material is applied with heat. Remember, some examples of heat sources are the Sun, burning fuel, electric heater, and human body. Caution: DO NOT place the actual materials below in direct heat like fire.</p>	<p>Week Test</p>

include temperature, concentration, inhibitors, surface area, and catalysts.

Directions: Identify which among the following activities shows Physical Change or Chemical Change when applied with heat. Write PC for Physical Change and CC for Chemical Change.

1. Melting of candle
4. Cooking Rice
2. Burning of wood
5. Frying Egg
3. Boiling of water



How does fire start?

- Will fire continue its flame in the absence of oxygen?
- Suppose we will cover it with a basin, what do you think will happen to the fire?
- What are the three important things needed for combustion to occur?

Activity 2 "Fish Kill"

A fishpond owner reported that there had been a fish kill in the pond. The fisheries bureau investigated the incident, only to find out that the fishpond was overly populated.



- What could be the cause of the fish kill?
- What is needed in the overpopulated pond?

5. bread E. syrup

What's New

Directions: The following materials undergo either physical or chemical change. Identify whether the change in the materials shows good or bad effects on the environment.

1. Old tires made into garden pots clothes



(Shenolikranowicz (globe.gov), n.d.)

2. Burning of dry leaves



(Grischenko, n.d.)

3. Cutting century-old trees



(Mokkie, 2018)

4. Cutting fabrics or clothes



(Froudesunlife, 2016)

5. Decaying unsegregated waste



(Projezt (globe.gov), n.d.)

1.



(Bolzanos, nd)

rubbing alcohol

2.



(Bolzanos, nd)

ice cubes

3.



(Bolzanos, nd)

chocolate

B. Is rusting a problem in your home? Find out 4 ways on how you can prevent rusting of materials that are made of iron. Make a list of it using the table shown below:

Ways to Prevent Rusting

C. Directions: List down activities that you can do with the following materials to save and protect the environment.

1. left-over food
2. rusted tin cans
3. empty boxes

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What's New

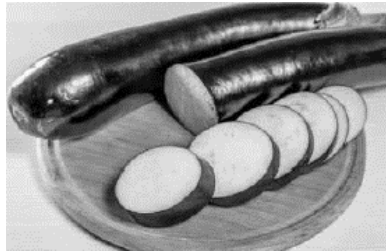
What's More

What is It

Assessment

Let us now investigate the changes in materials in the presence or absence of oxygen.

Have you observed your mother slicing an eggplant? What was the color of the eggplant while it was being sliced? What was its color after a few minutes? Were there any changes in the color? Did it turn brown after slicing?



Activity 3 “Rusting”
Observe the rusted iron nails.





- What causes the formation of rust in the iron nails?
- What shall we do with the iron nails to minimize or prevent it from rusting?
- What are the two factors that influence the formation of rust in the iron nails?

Changes in materials can cause a good or a bad effect in the environment. Some changes in materials are good for the environment. Composting, recycling, and the use of technology are some examples of the good effects of the changes in materials. Composting is a way of decomposing plant or animal matter into fertilizer. Recycling helps lessen garbage by reusing them like plastic, styrofoam, old tires, and paper. Evaporation and condensation are forms of physical change in matter. Evaporation is a crucial part of the water cycle. Water from all areas on Earth will not be recycled if it will not evaporate into water vapor as clouds in the sky. Condensation is important in transforming water vapor to droplets of water stored in clouds. Some changes in matter may result in negative effects like pollution, destruction of habitat, and loss of lives. Improper disposal of garbage, harmful chemicals, and human waste can cause changes. It can pollute air, land, and water. Burning of garbage materials releases dangerous toxic chemicals, and gases that contribute to the intense greenhouse effect that may lead to global warming. Smoke from the burning of fuels can cause air pollution. Cutting down trees is also harmful to our environment. It affects the quality of air that we breathe. It causes a rapid change in the temperature and in turn changes the

- A. Directions: Study the following situations and identify what is likely to happen when the heat is applied to the object. Choose the answer inside the parenthesis.
1. The (melting, melts) of butter when left out in a warm room is an example of (chemical change, physical change)
 2. An ice cream cone (melting, melts) on a hot day is an example of . (chemical change, physical change)
 3. Charcoal (burns, burning) on the grill is an example of _____ . (chemical change, physical change)
 4. Frying an egg on a (heated, heating) pan is an example of _____ . (chemical change, physical change)
- B. Directions: Choose and write the letter of the correct answer in your answer sheet.
1. The presence or absence of oxygen in the materials may result in _____ .
A. the burning of the materials
B. the melting of the materials
C. the change in the materials
D. no change in the materials
 2. Iron, nails, cans, and other metals with iron when exposed to moisture may develop ____ .
A. dust
B. rust
C. heat
D. fuel
 3. The inner part of the potatoes and apples change in color because of .
A. water in it
B. chemicals in it
C. exposure to heat
D. exposure to oxygen
 4. The following activities cause a change in matter. Which of these has a bad effect on the environment?
A. slicing fruits
B. sewing clothes

			<p>weather patterns, which leads to other environmental concerns. Throwing into the river the detergents used for washing the clothes makes the river become polluted because these contain toxic substance. Polluted water kills living organisms like fish, and water plants. When land is dumped with garbage, the land becomes polluted, if this happens, the polluted land will serve as the breeding places for pests that carry germs, hence dangerous to human health.</p> <p>We have to do our share in maintaining a healthy environment. We must avoid too much use of electricity and gasoline. We must also avoid burning rubber tires and plastics. Practices that will produce acid rain, increase global temperature, or deplete the ozone layer must be minimized. No matter how big or small the contribution you give, what matters most is you've made a difference for our environment.</p>	<p>C. peeling vegetables D. breaking empty bottles of liquor</p> <p>5. The following are effects in the environment by the changes in matter. Which of these has a good effect on the environment? A. air pollution B. composting C. deforestation D. water pollution</p> <p>6. Many families use wood as fuel in cooking food. What is the bad effect on the environment of this activity? A. deforestation B. air pollution C. land pollution D. water pollution</p>
	<p>What is It</p> <p>The changes in the color of the inner fleshy part of the eggplant is due to its exposure to oxygen. The same phenomena could also be observed in potato, banana, guava, cassava, and other fruits and vegetables.</p> <p>How do you keep the eggplant from turning brown? Place in a large bowl of water with a teaspoon of salt dissolved in it. The water should be enough for all the</p>		<p>What's More</p> <p>Activity 1</p> <p>Directions: Identify which bad effect to the environment results from the following changes in matter. Choose the letter of the best answer.</p> <p>A. Air pollution C. Soil Pollution B. Deforestation D. Water Pollution</p> <ol style="list-style-type: none"> illegal logging of trees burning of wood using plant insecticide sprays dumping rusted tin cans in the sea making forest areas into a residential lot 	

	<p>sliced eggplant to dip in fully. This is to prevent the oxygen present in the air to react with the chemicals present in vegetables.</p> <p>Another example of a change in materials when oxygen is present is in combustion. It occurs when oxygen combines with another substance (as fuel) and produces fire with heat and light. Combustion is also known as burning. It is always exothermic, that is, giving off heat. In combustion, oxygen, fuel, and heat are always present.</p> <p>For example, when you lit a candle, its wick burns if oxygen and wax (candle) is present and heat is produced. Other examples include the burning of wood or charcoal for cooking and burning of petrol or diesel to run your car. If oxygen is present in a wet material with iron, such as a nail or steel bar, the formation of rust occurs. It only happens when iron, oxygen, and water react with one another. Rust occurs when iron or alloys such as steel corrode, thus rusting is commonly known as iron or steel corrosion.</p>		<p>Activity 2</p> <p>Directions: Write YES if the change in matter in each number has a good effect on the environment and NO if it has a bad effect.</p> <p>1. Burning of dry leaves 2. Stitching holes on clothes</p> <p>1. Burning of dry leaves  (Bollano, nd)</p> <p>2. Stitching holes on clothes  (Bollano, nd)</p>	

V. REMARKS					
VI. REFLECTION					
A. No. of learners who earned 80% in the evaluation					
B. No. of learners who require additional activities for remediation who scored below 80%					
C. Did the remedial lessons work? No. of learners who have caught up with the lesson					
D. No. of learners who continue to require remediation					
E. Which of my teaching strategies worked well? Why did these work?					
F. What difficulties did I encounter which my principal or supervisor can help me solve?					
G. What innovation or localized materials did I use/discover which I wish to share with other teachers?					

