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Worksheet for Science

Quarter 1
Week
5

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Worksheet for Science Grade 5
Quarter 1: Week 5
SY 2023-2024

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LEARNING ACTIVITY SHEET 1

Learning Area:	Science	**Quarter:**	1st Quarter
Lesson No.:	5	**Date:**	
Lesson Title/ Topic:	Temperature and its effect on the state of matter		
Name:		**Grade & Section:**	

I. Activity No.1: Heating and Cooling a Candle

II. Objective(s):

a. define heat and how energy moves; and
b. determine the effect of heat on the different states of matter

III. Materials Needed:

laboratory thermometer, candle, burner, empty tin can, bowl with water

IV. Instructions:

1. Break up the candle into small pieces and put them in the empty tin can.
2. Place the thermometer in the tin and take the burner as shown in the picture below.
3. Measure the temperature of the candle every two minutes and observe the candle until it melts completely.
4. Record the temperature and your observations in the table after every two minutes for ten minutes.

RECORD OF OBSERVATIONS

Time (minutes)	**Temperature** (Celsius)	Condition of the Candle
00		
02		
04		
06		
08		
10		

5. After melting, place the tin can in the bowl of water. Measure the temperature of the melted candle every two minutes for another ten minutes and observe its hardness.
6. Record the temperature and your observations in the table.

RECORD OF OBSERVATIONS

Time (minutes)	**Temperature** (Celsius)	Condition of the Melted Candle
00		
02		
04		
06		
08		
10		

7. Share your results with your classmates.

Discussion Questions:

1. What was the state of the candle before and after heating?

_____

2. How did the state of the candle change after placing it in the bowl?

_____

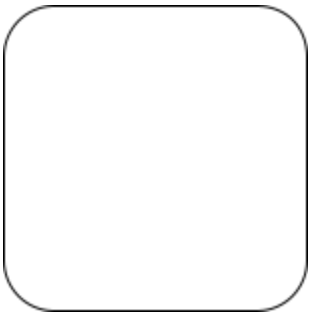
3. What was the temperature of the candle when it completely melted and hardened?

_____

4. How does the candle change its state from a solid to a liquid and from a liquid to a solid?

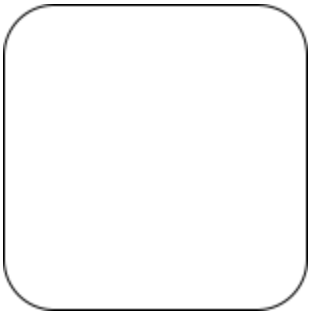
_____

5. Imagine seeing the molecules of the candle. Could you draw how they look like before heating? Draw it in the box below.



What state of matter was it? _____

6. How about after it was heated? Draw it in the box below.

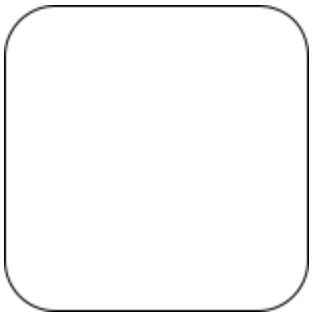


What state of matter was it? _____

7. What do you think caused the molecules to change their arrangement?

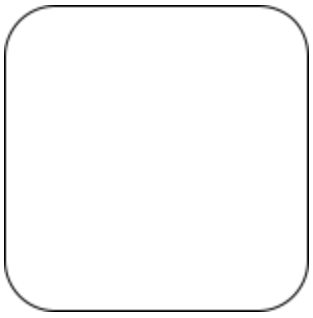
_____

8. When the melted candle was poured into the can, what do you think the molecules look like? Draw it in the box.



What state of matter was it? _____

9. How about when the temperature reading was at its lowest? How do you think the molecules looked then? Draw it in the box.



What state of matter was it? _____

V. Synthesis

What happened to the candle when you heat and cool it? What do you think is the effect of heat on solid and liquid materials?

_____

_____

_____

_____

LEARNING ACTIVITY SHEET 2

Learning Area:	Science	**Quarter:**	1st Quarter
Lesson No.:	5	**Date:**	
Lesson Title/ Topic:	Temperature and its effect on the state of matter		
Name:		**Grade & Section:**	

I. Activity No.2: Water Wonder

II. Objective:

a. explain the effect of heat on the different states of matter.

III. Materials Needed:

laboratory thermometer, two ice cubes on a platter, a burner, an empty tin can

IV. Instruction:

1. Observe the ice cubes on a platter and get the temperature every two minutes. Write this in Column B.
2. Record the observations on the condition of the ice cube in Column C.
3. When the ice has melted, take note of its volume and record it in Column E. Pour it into the empty tin can. Take the temperature and record this in Column D.
4. Mount the tin can to the burner and bring it to a boil.
5. Record the temperature every two minutes for 14 minutes and observe the changes that have taken place. Observe the amount of water.

RECORD OF OBSERVATIONS

Time (minutes) A	**Temp** (Celsius) B	**Condition of the ice cube** C	**Temp** (Celsius) D	**Condition of the water** E
00				
02				
04				
06				
08				
10				
12				
14				

6. After about three temperature recordings (approximately 5-6 minutes), put off the fire and record your observations. Record how much water is left.

V. Synthesis

Discussion Questions:

1. What happened to the ice cubes when the temperature increased?

   _____
   _____

2. What happened to water when heat was continuously applied?

   _____
   _____

3. What happened to the volume of water before and after applying more heat ?

   _____
   _____

4. Where do you think the water goes?

   _____
   _____

5. What observable characteristic of water surfaced?

   _____
   _____

6. What changes in the states of matter did you observe during this activity?

_____
_____