

EaD Comprehensive Lesson Plans

 or  **0248043888**

NAME OF TEACHER:

WEEK ENDING.....24-02-2023.....

NUMBER ON ROLL:

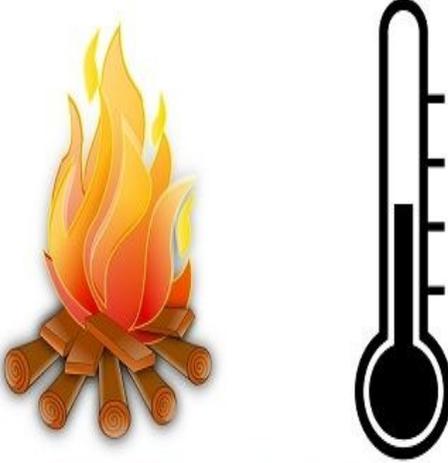
SUBJECT... SCIENCE

DURATION:

REFERENCE...SYLLABUS(CRDD,2007), FOR JHS

FORM.....BASIC 9.....

WEEK.....7.....

<u>DAY/DATE</u>	<u>TOPIC/SUB-TOPIC/ASPECT</u>	<u>OBJECTIVES/R.P.K</u>	<u>TEACHER-LEARNER ACTIVITIES</u>	<u>T/L MATERIALS</u>	<u>CORE POINTS</u>	<u>EVALUATION AND REMARKS</u>
TUESDAY 9:15AM - 10:25AM 70min	Topic: Heat Energy Sub Topic: Heat and Temperature	Objectives By the end of the lesson, pupils will be able to; <ol style="list-style-type: none"> i. Explain the meaning of Heat and Temperature ii. Identify examples of Heat and Temperature iii. Differentiate between Heat and 	Introduction. Review Pupils knowledge on the previous lesson. Activities <ol style="list-style-type: none"> 1. Assist Pupils to identify 5 examples of heat and temperature 2. Discuss the difference between Heat and Temperature with the Pupils. 3. Pupils in groups to 	Warm Water, Piece of Metal, Fire, Video showing Conduction process.	 <p style="text-align: center;">HEAT TEMPERATURE</p> <p>The concept of heat and temperature are studied together in science, which is somewhat related but not alike. The terms are very common, due to their wide usage in our day to day life. There exist a fine line which demarcates heat from temperature, in the</p>	Exercise; <ol style="list-style-type: none"> 1. Explain the following; <ol style="list-style-type: none"> i. Heat ii. Temperature 2. Write 3 differences between Heat and temperature.

		<p style="text-align: center;">Temperat ure</p> <p>RPK Pupils were taught lessons on Heat in basic 7.</p>	<p>discuss how heat relate temperature .</p> <p>Conclusion Each group to report on their discussions to the class.</p>		<p>sense that heat is thought of, as a form of energy, but the temperature is a measure of energy.</p> <table border="1" data-bbox="1265 268 1839 1098"> <thead> <tr> <th data-bbox="1265 268 1473 427">BASIS FOR COMPARISON</th> <th data-bbox="1473 268 1630 427">HEAT</th> <th data-bbox="1630 268 1839 427">TEMPERATURE</th> </tr> </thead> <tbody> <tr> <td data-bbox="1265 427 1473 671">Meaning</td> <td data-bbox="1473 427 1630 671">Heat is the amount of energy in a body.</td> <td data-bbox="1630 427 1839 671">Temperature is the measure of the intensity of heat.</td> </tr> <tr> <td data-bbox="1265 671 1473 1098">Measures</td> <td data-bbox="1473 671 1630 1098">Total kinetic and potential energy contained by molecules in an object.</td> <td data-bbox="1630 671 1839 1098">Average kinetic energy of molecules in a substance.</td> </tr> <tr> <td data-bbox="1265 1098 1473 1380">Property</td> <td data-bbox="1473 1098 1630 1380">Flows from hotter object to cooler object.</td> <td data-bbox="1630 1098 1839 1380">Rises when heated and falls when cooled.</td> </tr> </tbody> </table>	BASIS FOR COMPARISON	HEAT	TEMPERATURE	Meaning	Heat is the amount of energy in a body.	Temperature is the measure of the intensity of heat.	Measures	Total kinetic and potential energy contained by molecules in an object.	Average kinetic energy of molecules in a substance.	Property	Flows from hotter object to cooler object.	Rises when heated and falls when cooled.	
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WEDNESDAY 11:00 AM-12:10PM 70mins	Topic: Heat Energy Sub Topic: Uses of Heat and Temperature	Objectives By the end of the lesson, pupils will be able to; Explain 5 uses of Heat and Temperature. RPK Pupils have using heat to dry clothes and to cook.	Introduction. Pupils brainstorm to mention things they use heat and Temperature for at home. Activities <ol style="list-style-type: none"> 1. Discuss with Pupils the uses of Heat and Temperature. 2. Assist Pupils to use heat and temperature in the classroom. 3. Pupils brainstorm to explain the advantages and disadvantages. 	Uses of heat <ul style="list-style-type: none"> • Cooking food. • Warming our bodies or the house. • Ironing clothes. • Drying clothes. • Providing power to move cars, ships, and hot air balloons. • To weld and cut metals.  <p>Temperature is a physical quantity that expresses quantitatively the perceptions of hotness and coldness. Temperature is measured with a thermometer</p>	Exercise; State 5 uses of Heat and Temperature.							

			<p>es of heat and temperature</p> <p>Conclusion Through questions and answers, conclude the lesson.</p>			
<p>THURSDAY</p> <p>9:15AM – 10:25AM</p> <p>70mins</p>	<p>Topic:</p> <p>Heat Energy</p> <p>Sub Topic:</p> <p>Calculating for Heat and Temperature of the Human body.</p>	<p>Objectives By the end of the lesson, pupils will be able to;</p> <p>Measure heat and temperature.</p> <p>RPK Pupils have checked their temperature of their body before.</p>	<p>Introduction. Show pictures of how to measure heat and temperature with the Pupils.</p> <p>Activities</p> <ol style="list-style-type: none"> 1. Discuss the units for measuring heat and temperature 2. Demonstrate how to measure for heat and temperature using formula 3. Individual Pupils are to be guided to measure heat and 		<p>Example 1</p> <p>Determine the temperature if 200 J of heat is released by the body of mass 6 Kg and has a specific heat of 0.8 J/Kg°C .</p> <p>Solution:</p> <p>Given:</p> <p>Heat released $Q = 200 \text{ J}$,</p> <p>Mass $m = 6 \text{ Kg}$,</p> <p>Specific Heat $c = 0.8 \text{ J/Kg}^\circ\text{C}$</p> <p>The temperature is given by $\Delta T = Q / mc$</p> $= 200 / 6 \times 0.8$ $\Delta T = 41.66^\circ\text{C} .$ <p>Example 2</p> <p>Determine the heat released when the temperature changes by 40°C by a body of mass 3 Kg which has a specific heat of 0.7 J/kg°C .</p> <p>Solution:</p> <p>Given:</p>	<p>Remarks</p>

			<p>temperature</p> <p>Conclusion Through questions and answers, conclude the lesson.</p>	<p>Temperature change = 40°C ,</p> <p>Mass m = 3 kg,</p> <p>Specific heat c = 0.7 J/kg°C ,</p> <p>The Heat released is given by formula $Q = mc \Delta T$</p> <p style="text-align: center;">$= 3 \times 0.7 \times 40$</p> <p style="text-align: center;">$Q = 84 \text{ J}$</p> <p style="text-align: center;">$Q = m c \Delta T$</p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>Q = Heat (cal or J)</p> <p>m = Mass (g)</p> <p>c = Specific heat (J/g°K)</p> <p>ΔT = Change in temperature</p> </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>If Q is positive, the substance absorbed heat.</p> <p>If Q is negative, the substance released heat.</p> <p>1 cal = 4.18 J</p> <p>1000 cal = 1 kcal</p> <p>0 °C = 273 K</p> </div> </div> <p>Check For Understanding: It was 45 degrees this morning, now it's 63. How do you find the temperature change?</p>	
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District: