or 0248043888
https://www.TeachersAvenue.net
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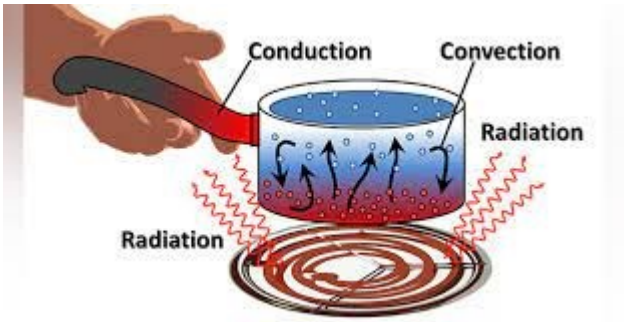
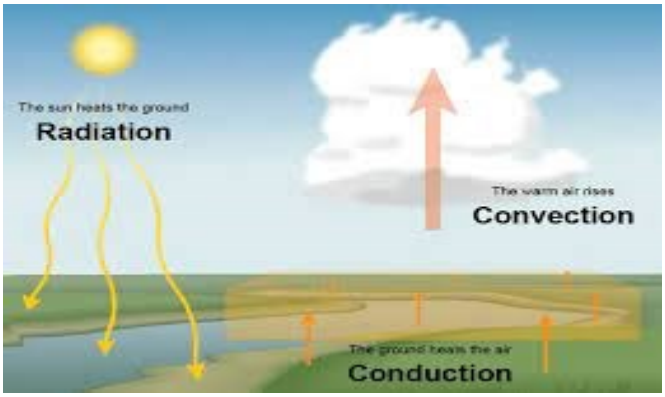
BASIC 7

WEEKLY LESSON PLAN – WEEK 8

Strand:	Forces and Energy		**Sub-Strand:**	Energy	
Content Standard:	B7.4.1.2 Demonstrate understanding of concept of heat transfer and its application in life				
Indicator (s)	B7.4.2.1.1 Explain how heat is transferred in various media.		**Performance Indicator:** Learners can identify the various media of heat transfer.		
Week Ending	26-05-2023				
Class	B.S.7	**Class Size:**		**Duration:**	
Subject	Science				
Reference	Science Curriculum, Teachers Resource Pack, Learners Resource Pack.				
Teaching / Learning Resources	Pictures, Video, cotton, polyester, Charts, Power point Presentation.		**Core Competencies:**	• Digital Literacy • Critical Thinking and Problem Solving • Communication and Collaboration.	

DAY/DATE	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFLECTION**
MONDAY **22-05-2023**	Discuss the meaning of "heat transfer" with the Learners.	1. Assist Learners to identify the various media of heat transfer. 2. Learners brainstorm to identify the properties of the various media of heat transfer. 3. Demonstrate how heat is transferred through different media. 4. Discuss with Learners about the methods of heat transfer. **Heat Transfer;** Heat transfer is a discipline of thermal engineering that concerns the generation, use, conversion, and exchange of thermal energy (heat) between physical systems. Heat transfer is classified into various mechanisms, such as thermal conduction, thermal convection, thermal radiation, and transfer of energy by phase changes.	**Group Work** Each group to demonstrate a method of heat transfer.

		 **Methods of Heat Transfer;** • Convection • Conduction • thermal radiation • evaporative cooling.   	
THURSDAY **25-05-2023**	Review Learners knowledge on the previous lesson.	1. Assist Learners to identify 3 types of heat transfer. 2. Discuss meanings of the types of heat transfer with the Learners. 3. Demonstrate on how radiation transfer heat or Learners to observe. 4. Learners brainstorm to mention examples of how radiation transfer heat. **Types of Heat Transfer;** • radiation. • conduction. • convection.	Through questions and answers, conclude the lesson. **Exercise;** 1. State 3 types of heat transfer. 2. Explain how

<table>
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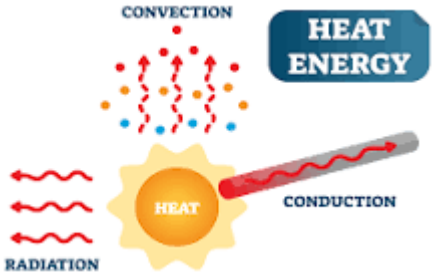
<td>How radiation transfer heat;
Radiation heat transfer occurs via electromagnetic waves. Unlike conduction and convection, radiation does not need a medium for transmission. Solar radiation energy traverses a 93-million-mile vacuum to warm the earth. Radiation also transfers thermal energy between bodies separated by a colder medium.
 

Heat transfer by radiation occurs when microwaves, infrared radiation, visible light, or another form of electromagnetic radiation is emitted or absorbed. An obvious example is the warming of the Earth by the Sun. A less obvious example is thermal radiation from the human body.</td>
<td>radiation transfer heat.</td>
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<td>FRIDAY

26-05-2023</td>
<td>Learners brainstorm to identify examples of radiation heat transfer in everyday life.</td>
<td>1. Using a chart, differentiate between the three types of heat transfer.
2. Demonstrate on activities that explains convective and conduction heat transfer.
3. Assist Learners to perform activities on convection of heat transfer and conduction heat transfer.

Difference between Conduction, Convection and Radiation of heat transfer.
<table>
<tr><th>Conduction</th><th>Convection</th><th>Radiation</th></tr>
<tr><td>In conduction, heat transfer occurs between objects by direct contact.</td><td>In convection, the heat transfer takes within the fluid.</td><td>In radiation, heat transfer occurs through electromagnetic waves without involving particles.</td></tr>
<tr><td>The heat transfer takes place due to the difference in temperature.</td><td>Heat transfer occurs due to the difference in density.</td><td>The heat transfer occurs in all objects with a temperature greater than 0 K.</td></tr>
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<td>Through questions and answers, conclude the lesson.</td>
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		Heat transfer in conduction is slow	Heat transfer in convection is faster.	Heat transfer in radiation is the fastest.	
		Heat transfer occurs through a heated solid object.	Heat transfer occurs through intermediate objects. For example, heat transfer between air and water.	Heat transfer occurs through electromagnetic waves.	
		It does not follow the law of reflection and refraction.	It does not follow the law of reflection and refraction.	It follows the law of reflection and refraction.	

Name of Teacher: ***School:*** ***District:***