

## **LESSON PLAN: 6**

School: Class: VIII No. of Students: Average Age: 13+ Time: 40 min	Subject: Science Topic: Flames Textbook: Science Teachers Name: Date:
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### **General Objectives:**

1. The pupils will be able to recall different Science related terms, formulas, symbols, rules, principles, laws, etc.
2. The pupils will be able to define different Science related terms.
3. The pupils will be able to develop Scientific attitude.
4. The pupils will develop powers of thinking and reasoning.
5. The pupils will develop a scientific and realistic attitude towards life.
6. The pupils will be prepared for elementary as well as higher education in different branches of science, economics, engineering, etc.
7. The pupils will develop an appreciation for the significance of the Scientific truth.

### **Specific Objectives:**

#### **1. KNOWLEDGE:**

- (i) The students will be able to define the term fuel, ideal fuel, calorific value etc.
- (ii) The students will be able to name the unit of calorific value.

(iii) The students will be able to name the different zone of candle flame.

## 2. UNDERSTANDING:

(i) The students will be able to explain how burning of fuel leads to harmful products.

(ii) The students will be able to explain the cause of acid rain.

## 3. APPLICATION:

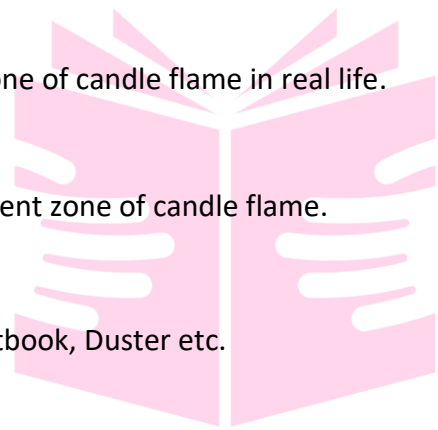
(i) The students will be able to identify the different zone of candle flame in real life.

## 4. SKILL:

(i) Pupils will be able to draw a diagram showing different zone of candle flame.

## Teaching Aids:

1. **General teaching aids:** Chalk, Black Board, Textbook, Duster etc.



## Introduction:

Steps	Teacher's Activities	Pupils' Activities
I N T R O D U C T I O N	Entering the classroom with a smiling face, the teacher will re-arrange the classroom if necessary. To introduce the day's lesson, the teacher will ask the following questions –  1. What is produce when we burn something? 2. What is called the glowing body produce during a fire? 3. What is the colour of a candle flame?	The pupils will turn on their videos and greet the teacher.  Pupils will try to give answers.

### Announcement of the Topic:

After getting the expected responses the teacher will say that – While we burn something it produce a glowing body that gives us heat and light. This called. You might have observed that the colour of flames is different in different situation. To understand it better, today we shall learn about flames. The teacher will announce the topic and write it down the blackboard.

“FLAMES”

The teacher will ask the students to note down the topic.

### Presentation:

Steps	Teaching Point	Teacher's Activities	Pupils' Activities	Learning Outcomes	Microteaching Skill
P R E S E N T A T I O N	1. Definition of Flame: A hot body glowing body that is generated by something on fire.	<p>The teacher will say – When we burn something, it produces a hot glowing body which as termed as flame. The substance which vaporises during burning, gives flames. On the other hand, a substance that does not vaporise does not produce flames.</p> <p>Then the teacher will explain the definition of flame and write it on the blackboard and ask the students to note it down.</p> <p><b>Flame:</b> a hot glowing body of ignited gas that is generated by something on fire.</p>	<p>Pupils will observe and listen attentively</p> <p>Pupil will note down the definition.</p>	<p>Pupils will be able to define flame and cause of flames.</p>	<p>Explaining</p> <p>Blackboard Writing</p>

P R E S E N T A T I O N	2. Structure of Flame:	<p>The teacher will explain the various parts of flame by taking an example of candle flames. Then the teacher will draw the diagram showing different zone of candle flames on the blackboard and ask the students to draw on their notebook.</p> <p>To assess the students learning the teacher will ask the following questions –</p> <ol style="list-style-type: none"> <li>1. Why are flames are produces during burning of a substance?</li> <li>2. Name three different zone of candle flames.</li> </ol>	<p>Pupils listen and draw the diagram</p> <p>Pupils will try to give answer</p>	<p>Pupils will be able to identify different zone of flames</p>	<p>Explaining, Blackboard Writing</p> <p>Questioning</p>
	3. Definition of Fuel: The sources of heat energy are called as fuel.	<p>The teacher will say that – The sources of heat energy for domestic or industrial purposes are mainly woo, charcoal, petrol kerosene etc. These substances are called as fuel.</p> <p>After that the teacher will write the definition of fuel on blackboard.</p> <p>Then the teacher will say that different substances produce different amount of heat. To measure the quantity of heat produced by a substance we introduce a term called calorific value. The calorific value of fuel is expressed in a unit called kJ/kg.</p>	<p>Students will listen attentively</p> <p>Pupils will listen attentively</p>	<p>Pupils will be able to define fuel.</p>	<p>Explaining</p> <p>Blackboard writing</p> <p>Explaining</p>

P R E S E N T A T I O N	4. Burning of a fuel lead to harmful products:	<p>Then the teacher will explain the calorific value and write definition of calorific value and its unit on the blackboard.</p> <p><b>Calorific Value:</b> The amount of heat energy produced on complete combustion of 1 kg of fuel is called it calorific value. Unit: Kilojoule per kg (kJ/kg)</p> <p>To assess the students learning the teacher will ask the following questions –</p> <ol style="list-style-type: none"> <li>1. What is the unit of calorific value?</li> <li>2. Among petrol and wood, which has the high calorific value?</li> </ol>	<p>Pupils will be able to define calorific value</p> <p>Pupils will try to answer</p>	<p>Pupils will note down the definition on the blackboard</p>	<p>Blackboard Writing</p> <p>Questioning</p>
		<p>The teacher will explain the harmful effect of the environment due to the increase in consumption of fuel.</p> <p>The teacher will also explain how increasing the consumption of fuel causes global warming and cause acid rain.</p> <p>To assess the students learning the teacher will ask the following questions –</p> <ol style="list-style-type: none"> <li>1. Explain the causes of global warming?</li> </ol>	<p>Pupils will listen attentively</p> <p>Students will try to give answer.</p>	<p>Pupils will be able to explain harmful effect of fuel consumption</p>	<p>Explaining</p>

### Conclusions:

Steps	Teacher's Activities	Pupils Activities
C O N C L U S I O N	<p>The teacher will consolidate the main points with the students and will write the following question on the blackboard as their homework and will ask the students to note it down.</p> <p><b>Homework:</b></p> <p>Q1. Draw a diagram to show the different zone candle flames.</p> <p>Q2. Explain the cause of acid rain.</p> <p>After the students write, the teacher will clean the board and leave the classroom.</p>	<p>The students will cooperate with the teacher.</p> <p>Students will write down the homework.</p>

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