

ACTIVITY NO. 6 – A SURPRISING FACT

Subject	Science
Class	VIII
Chapter/Unit	Combustion and Flame
Topic	Ignition Temperature
Time	30 minutes
Nature of Activity	Pair work

What will I learn (Learning Outcome)?

Will experimentally learn about the concept of ignition temperature of fluids.

Skills: Applying and Analyzing

What I have to do?

To show that fuel/substance should be heated to its ignition temperature to make it burn.

What do I require?

Paper, candle, water, match box

What do I need to know?

Combustion is a chemical process in which a substance burns in the presence of air or oxygen, with release of heat and light.

➤ Teacher's Activity

Teacher will-

1. explain the topic
2. make arrangements for this activity.
3. make pairs of the students and will explain the steps of the activity.
4. ensure that each participant of the pair performs the activity on his/her own.
5. help the students in lighting candle and be cautious.

How will I proceed?

➤ Student's Activity

1. Make two paper cones.
2. Heat one empty paper cone on the flame of candle and observe.
3. Fill the other paper cone one-third with water and heat it on the flame and observe.

What have I observed?

Tick the correct one-

Observation	Paper cup with water	Paper cup without water
Which will burn first?		

What have I learnt?

Things do not burn unless they are heated to a certain temperature which is called the _____ of a combustible substance. In the above activity, the water in the paper cone _____ heat from the candle flame and thus _____ paper to reach its _____.

What am I curious to learn?

- Let us try to burn paper, wood and card board. Note the time taken by the substances to catch fire. Which of these substances has lowest ignition temperature?

Let me evaluate myself

1. What do you mean by the term ignition temperature?

2. Why is it difficult to burn a heap of green leaves, but dry leaves catch fire easily?

3. Why do we pour water on the fire caused by non-electrical appliance?

4. A piece of paper wrapped around an aluminium pip does not catch fire easily. Why?

5. The ignition temperature of four substances P, Q, R and S are 125°C , 270°C , 155°C and 310°C respectively. Which of the following pairs of substances catches fire at 250°C ? Give reason for your answer.
