

**Subject: Science**

**Activity - Oxygen is necessary for combustion**

**Chapter- Combustion and Flame**

**Class:** VIII

**Duration:** 30 minutes

**Nature of the activity:** Group

**Learning Outcome:** Students will be able to perform an activity to demonstrate the importance of oxygen in the process of combustion.

**What we have to do?**

To show that oxygen is necessary for the combustion of a substance.

**What do we require?**

Two candles, match box, glass jar or a beaker.

**What do we need to know?**

Combustion is a chemical process by which an object catches fire in the presence of air. For combustion to take place, fuel, oxygen and heat are the necessary things.

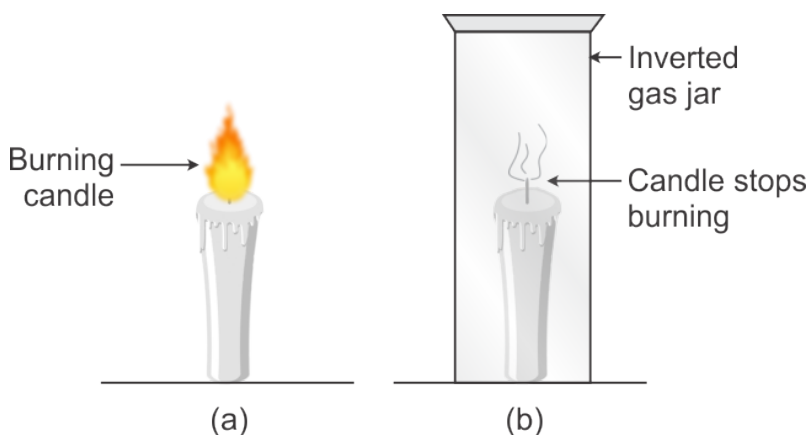
**How do we proceed?**

- **Teacher's activity:**

Teacher will arrange activity kits. The activity has to be done under teacher's supervision and in chemistry lab.

- **Student's activity:**

1. Light the two candles and fix them on a table
2. Let both the candles burn for some time.
3. Now cover one of the candles with a glass jar or beaker and observe it for some time.



### **What have you observe?**

What is the effect on the flame in the above two cases?

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### **What have you learnt?**

In case 1, the candle burns freely (Yes/No) \_\_\_\_\_. This happens because \_\_\_\_\_.

In case 2, the candle burns freely (Yes/No) \_\_\_\_\_. This happens because \_\_\_\_\_.

### **What more can we do?**

The teacher helps the students to understand how fire extinguisher works. She also guided the student on how to perform the activity.

Carbon dioxide extinguishes fire. Perform an activity to show it. Prepare carbon dioxide gas by adding half tea-spoon of baking soda (sodium hydrogen-carbonate) in a test tube filled one-third with vinegar. Now bring an ignited match stick to the mouth of the test tube. The flame will be extinguished at once.

### **EXTENDED LEARNING WORKSHEET:**

1. Name a gas which helps in extinguishing fire?

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2. Why do we cover a person with blanket when his/her clothes catch fire?

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3. If there is a fire breakout in a petrol station, how will the fire extinguisher help to put off the fire?

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4. How does combustion start in a matchstick?

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5. Two glass jars A and B are filled with carbon dioxide and oxygen gases respectively. In each jar a lighted candle is placed simultaneously. In which jar will the candle remain lighted for a longer time and why?

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