

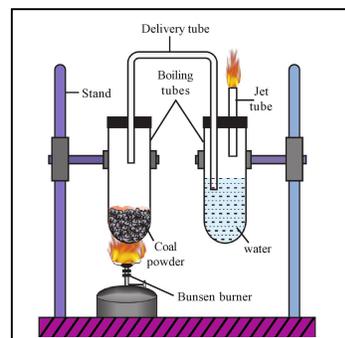
## EXPERIMENT - 1

### HEATING OF COAL

**Aim** : To prove that when we heat high quality coal (Carbon content is more), a gas evolves which can burn.

**Required** : Boiling tubes-2, Single holed rubber cork, Two holed rubber cork, Retard stands-2, Spirit burner, Delivery tube, Jet tube.

**Description** : So many gases are released when coal is heated. Some of the gases dissolve in water. Some of the gases do not dissolve in water. Remaining gases evolved out. They can burn easily.



#### **Procedure:**

1. Fix the boiling tubes to the retard stand separately side by side.
2. Take a spoon of coal powder in one boiling tube and water in another boiling tube up to half of its level.
3. Close the first boiling tube with single holed rubber cork. (In which coal is taken)
4. Close the second boiling tube with two holed rubber cork.(In which water is taken)
5. Arrange one end of delivery tube in first boiling tube and the second end in to the second boiling tube.
6. Arrange jet tube in to the second boiling tube through another hole of rubber cork.
7. Lit the spirit burner and heat the first tube.
8. Observe the gas evolved from first test tube.
9. Observed the gas evolved from jet tube.
10. Keep a burning stick at the mouth of the jet tube where gas is evolved.
11. Note down observations in table.
12. Repeat the same by using lemon water and soap water instead of water.
13. Note down the observations in each and every case.

#### **Observations:**

Liquid taken in second Boiling tube	Colour of gas when evolved from first boiling tube	Colour of gas when evolved from second boiling tube	Is the gas burn ? or not ?	If it burns, Colour of the flame
Water				
Lemon juice				
Soap water				

#### **Precautions :**

- Heat the glass tube carefully. Some times it may break.
- Care is needed while burning the evolved gas.

**Result** : Observed the burning property of gas evolved when we heat high quality coal.