

NON-BURNING BANK NOTE

Topic: Combustion

Timing: 2 minutes

Apparatus: 1) Bunsen burner
2) A pair of tongs
3) A heat proof mat
4) Three 250 mL beakers
5) Lighter
6) Bank Note / Paper

Materials: 1) Ethanol
2) Distilled / De-ionized water

Methods: Before the demonstration

- Prepare some pieces of paper about the size of a bank note.
- Prepare three beakers: 1st containing about 100 mL of water
2nd containing about 100 mL of ethanol
3rd containing a mixture of 50 mL of water with 50 mL of ethanol (ratio 1:1)

The demonstration

- Soak a piece of paper in water and try to ignite it by holding it with tongs in a yellow Bunsen flame. It will not ignite.
- Soak a second piece in ethanol. This will ignite easily. The alcohol will burn and ignite the paper, which will burn away.
- Soak a third piece in the alcohol-water mixture and hold it in Bunsen flame. This time the alcohol will ignite and burn away, but the paper will not.