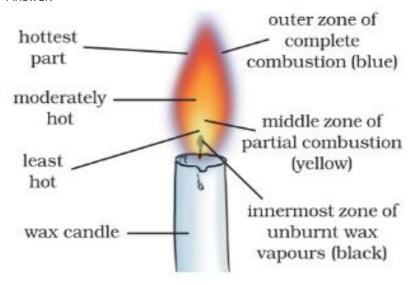


5. Give reasons.

- (a) Water is not used to control fires involving electrical equipment.
- (b) LPG is a better domestic fuel than wood.
- (c) Paper by itself catches fire easily whereas a piece of paper wrapped around an aluminium pipe does not.

 Answer:
- (a) Water is a conductor of electricity, so it can easily conduct electric current and cause danger of electric shocks or short-circuits. Therefore, water can not be used to control the fire involving electrical equipment.
- (b) LPG is a better domestic fuel as it does not produce smoke and un-burnt carbon particles, which cause respiratory problems.
- (c) Paper by itself catches fire easily because it has low ignition temperature but when wrapped around an aluminium pipe its temperature is lowered due to aluminium metal absorbing the heat supplied to paper. So it does not catch fire.

6. Make a labelled diagram of a candle flame. Answer:



7. Name the unit in which the calorific value of a fuel is expressed.

The calorific value of a fuel is expressed in kilojoules per kilogram (kJ/kg).

8. Explain how CO_2 is able to control fires.

Answer

Being heavier than oxygen, ${\rm CO_2}$ covers the fire like a blanket. Since the contact between the fuel and oxygen is cut off, the fire is controlled.

