

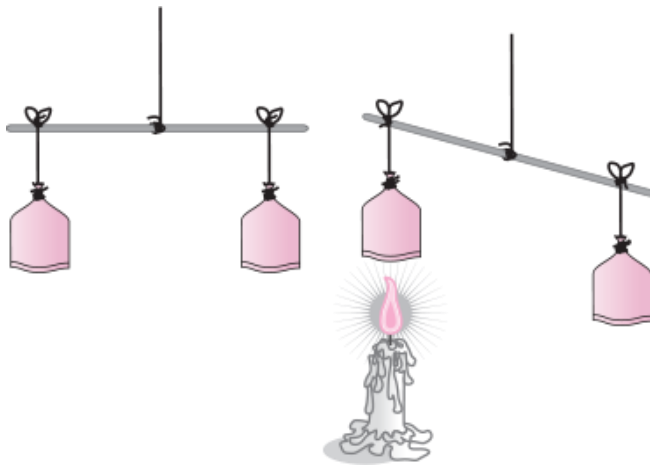
Long Answer Questions

Q.1. Describe an activity to demonstrate that warm air is lighter than cool air.

[NCERT Exemplar]

Ans. Activity:

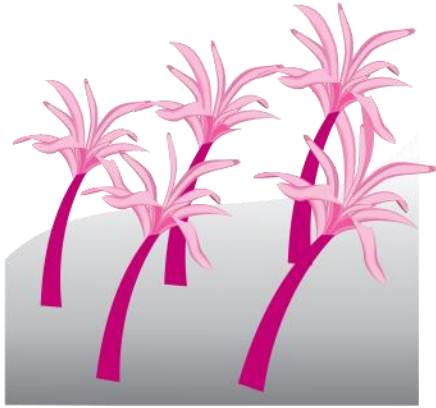
- Take two paper bags of the same size and hang them in inverted position on the two ends of a wooden stick.
- Tie a thread in the centre of the stick and hold the stick by the thread to balance it.
- Place a burning candle below one of the bags.
- The bag above the candle goes up, as the air above the candle becomes warm, it rises, and pushes the bag up.



Q.2. Explain briefly how the uneven heating between the equator and the poles generate wind currents.

Ans. Places near the equator are always warm as they get the maximum heat from the Sun. The warm air from these regions rises and cool air from the regions in the 0-30° latitude belt on either side of the equator moves in. At the poles, the air is cold. Warm air from latitudes of about 60° rises up and cold air from the poles rush to take its place, thus setting up a wind circulation from the poles to warmer latitudes.

Q.3. The picture in figure shows tree line along the sea coast on an island near the equator. As shown, the tree tops are permanently bent in one direction. Are the trees bent towards the sea or away from it? Explain.



[NCERT Exemplar]

Ans. The tree tops are permanently bent in one direction, i.e., towards the land or away from the sea. This is because in the day time wind blows from sea to land. This sea breeze makes the trees to bend towards the land.