

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Winds, Storms and Cyclones

Q1. High speed winds are accompanied by reduced air pressure. Prove the statement with help of an experiment.

Ans.

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Q2. Explain with the help of an activity that an increase in the speed of air, results in the drop of pressure.

Ans.

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## Winds, Storms and Cyclones

Q1. High speed winds are accompanied by reduced air pressure. Prove the statement with help of an experiment.

Ans. Crumple a small piece of paper into a ball of size smaller than the mouth of an empty bottle. Hold the empty bottle on its side and place the paper ball just inside its mouth. Now try to blow on the ball to force it into the bottle. When we blow into the mouth of the bottle the air near the mouth has higher speed. This decreases the pressure there. The air pressure inside the bottle is higher than near the mouth. The air inside the bottle pushes the ball out.



Image from NCERT

Q2. Explain with the help of an activity that an increase in the speed of air, results in the drop of pressure.

Ans. Take two balloons of approximately equal size. Put a little water into the balloons. Blow up both the balloons and tie each one to a string. Hang the balloons 8–10 cm apart on a cycle spoke or a stick. Blow in the space between the balloons. We will observe that the freely suspended balloons move toward each other. The reason is, when high speed air moves through the gap in between the balloons, the pressure of air falls in the gap. Thus, air at high pressure the sides of balloons forces them inward.



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