

SCIENCE

ACTIVITY-8

WINDS, STORMS AND CYCLONES

Class: VII

Duration-30 minutes

Nature of activity: Individual

Learning Outcome: Students will be able to explain that high speed winds are accompanied by reduced air pressure.

What we have to do?

We have to show that pressure reduces when air moves with high speed.

What do we require?

Two table tennis balls, some cotton thread and a drinking straw.

What do I need to know?

The faster the air moves, the more is the drop in pressure in that region.

Teacher's Activity: Teacher will arrange the materials for the individual and give instructions regarding the activity.

How will you proceed?

Student's Activity:

- (i) Tape cotton thread to the two balls and hang them so that they are at the same height, 2-3 cm apart from each other.
- (ii) Now try to force them apart by blowing air between them using a drinking straw.

What have you observed?

The _____ we blow, the _____ the ball come to each other.

What have you learned?

- This happens because _____ wind speed results in _____ air pressure.

What more can we do?

- We can utilise this in principle and modify the tin roof houses in villages because when high speed winds blows over a tin roof house or houses whose roofs are weak, they could be lifted and blown away.

Extended learning worksheet

Answer the following questions:

1. If you hold a thin strip of paper just below your lips and blow air over its surface from your mouth, the strip of paper lifts up. Explain why?

2. What will happen if high speed winds blow over a house having weak tin roofs? Give reasons.

3. Does air pressure increase or decrease as you go up in the atmosphere?

4. Name three natural phenomena involving high speed winds which can create disasters and pose a threat to life and property.

5. Which of the two is accompanied with high speed winds: reduced air pressure or increased air pressure?
