

Long Answer Questions

Q. 1. Explain how lightning takes place.

[NCERT Exemplar]

Ans. During the development of a thunderstorm, the air currents move upwards while the water droplets move downwards. These vigorous movements of air currents cause separation of charges. The positive charges collect near the upper edges of the clouds and the negative charges accumulate near the lower edges. There is accumulation of positive charges near the ground also. When the magnitude of the accumulated charges become large, the air cannot resist their flow. As a result negative and positive charges meet producing a streak of bright light and sound, called lightning.

Q. 2. What should you do during an earthquake?

Ans. During an earthquake, we should

(a) Try to get out of the high-rise building. If you cannot get out safely, hide under a desk or a study table.

(b) Get into an open area, away from trees, buildings and power lines. In a hilly terrain, it is advisable to stay away from slopes.

(c) Not run outside blindly, one may get killed by falling bricks and debris just outside the buildings. We should not use lifts during an earthquake.

(d) Ask the driver to take the vehicle on a side of the road. If you are in a moving vehicle, keep away from the bridges, trees, buildings and power lines. Stay inside the vehicle and wait for the shaking to stop.

(e) Not rush to the roof of the house. Never enter a cracked or partially damaged house. The slightest movement may lead to its collapse. If you are in bed, protect your head with a pillow.

Q. 3. What precautions would you take if lightning occurs while you are outside the house?

[NCERT Exemplar]

Ans. (a) Seek for a shelter. Buildings are best for shelter.

(b) Stay away from poles or other metallic objects.

(c) Stay away from tall trees.

(d) Stay away from open vehicles like motorbikes, tractors, construction machinery, etc.