



Affiliation No. 1130703

Class Notes

CLASS: VIII DIVISION: _____

SUBJECT: SCIENCE

PREPARED BY: Prathibha Hebbar

LESSON: 12 – SOME NATURAL PHENOMENA

Pre Activity : - Draw the earth's inner structure which shows different layers.

Key Words :

1. Crust
2. Discharge
3. Electroscope
4. Richter scale
5. Seismograph
6. Tsunami
7. Tremor

Q1. What is an epicentre?

Ans: The point on the surface of the earth, directly above the focus of an earthquake is called epicentre.

Q2. Why is a car with closed windows a safe place during lightning?

Ans: This is because the metallic body of car acts as a conducting path for the lightning bolt and total charge developed during lightning goes towards the earth.

Q3. Sometime, a crackling sound is heard while taking off sweater during winters. Explain.

Ans: Normally, Sweater is made of wool and the other inner clothes like shirts are made up of cotton and synthetic fibres. Due to friction among these, static charge gets accumulated on the sweater. While taking off sweater, an electric discharge occurs between sweater and the body which results in forming of sparks and crackling sound.

Q4. Explain why a charged body loses its charge if we touch it with our hand.

Ans: Human body is a good conductor of electricity. A charged body loses its charge when we touch it with hand because the charges get transferred through our body to earth. This process of transferring of charges from charged body to earth is known as earthing.

Q5. Name the scale on which the destructive energy of an earthquake is measured. An earthquake measures 3 on this scale. Would it be recorded by a seismograph? Is it likely to cause much damage?

Ans: Richter Scale measures the destructive energy of an earthquake. Yes, seismograph can measure an earthquake of magnitude 3 on Richter Scale. It is of low intensity and will not cause any damage.

Q6. Suggest measures to protect ourselves from lightning.

Ans: Safety Measures during Lightning:

1. Open space is dangerous. Take cover under a building.
2. Thunderstorm is an indication to rush for safer place.
3. Once thundering stops, move out to an open place.
4. Unplug electrical appliances like computer TV AC etc.
5. Get away from water.

Q7. Explain why a charged balloon is repelled by another charged balloon whereas an uncharged balloon is attracted by another charged balloon?

Ans: Two charged balloons have similar charges on the surfaces. Since like charges repel each other, that's why one charged balloon is repelled by another charged balloon. When an uncharged balloon is brought near a charged one, the uncharged balloon acquires some opposite charge. Since unlike charges attract each other, therefore a charged balloon attracts an uncharged one.

Q8. List three states in India where earthquakes are more likely to strike.

Ans: 1. Jammu & Kashmir

Reason: Located in the Himalayan region, which lies in a seismically active zone due to the collision of the Indian and Eurasian tectonic plates.

2. Himachal Pradesh & Uttarakhand

Reason: Part of the Himalayan belt, these states experience tectonic activity as the Indian plate continues to push under the Eurasian plate.

3. Assam (and Northeast States)

Reason: The Northeast region is located near the convergent boundary of the Indian and Eurasian plates and is prone to seismic activity due to tectonic movements and subduction zones.

Q9. Suppose you are outside your home and an earthquake strikes. What precaution would you take to protect yourself?

Ans: During the earthquake, I would take the following precaution:

1. I would try to find a clear spot, away from buildings, trees and overhead power lines. Drop to the ground.

2. If I am in a car or a bus, won't come out. Ask the driver to drive slowly to a clear spot. I will not come out till the tremors stop.

Q10. The weather department has predicted that a thunderstorm is likely to occur on a certain day. Suppose you must go out on that day. Would you carry an umbrella? Explain.

Ans: No, you should not carry an umbrella during a thunderstorm because it can increase your risk of being struck by lightning:

- Risk of electric shock: Umbrellas are often made of metal, which is a good conductor of electricity. If lightning strikes the umbrella, the electric discharge can pass through the metal and cause serious injury or even death.
- Lightning can strike objects on the ground: Thunderstorms are often accompanied by lightning, which can strike objects on the ground.
- Safer to seek shelter: It's safer to seek shelter indoors until the storm passes.

Post Activity : - Discuss the connection between natural disasters and climate change.

Subject Tr

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