

Lightning

A. Choose the correct answer:

1. What causes lightning?

- A) The movement of the moon
- B) The collision of clouds with the ground
- C) The flow of electric charge between clouds and the ground
- D) The movement of air currents

2. Which of the following is NOT a characteristic of lightning?

- A) It is a sudden electrical discharge
- B) It produces a loud sound called thunder
- C) It only occurs during storms with high winds
- D) It can heat the air to a high temperature

3. What is the flash of lightning caused by?

- A) Sudden movement of air
- B) The release of energy from the sun
- C) The rapid expansion and contraction of heated air
- D) The collision of water droplets

Fill in the Blanks:

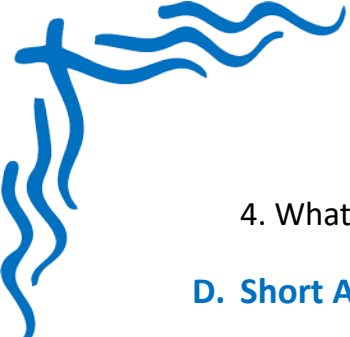
1. Lightning is caused by a sudden discharge of _____ between the clouds and the Earth.
2. The loud sound heard after lightning is called _____.
3. The temperature of a lightning bolt can reach _____ degrees Celsius, which is hotter than the surface of the sun.

C. Case Study:

During a thunderstorm, a lightning strike hits a tree in a field, causing a fire. The lightning had traveled from the clouds to the ground, carrying a large amount of electrical energy. The tree was struck, and the heat from the lightning caused the tree to catch fire.

Case Study Questions:

1. What happened when the lightning struck the tree?
2. How does lightning cause a fire?
3. Why is lightning so dangerous for both living beings and objects on the ground?

- 
4. What can be done to prevent the damage caused by lightning?

D. Short Answer Questions:

1. How is lightning formed?
2. Why does lightning produce thunder?
3. What safety measures should be taken during a lightning storm?

E. Long Answer Questions:

1. Describe the process of how lightning occurs between clouds and the ground.
 2. Explain the relationship between lightning and thunder. Why is thunder heard after lightning?
 3. Discuss the dangers of lightning and how to stay safe during a thunderstorm.
- 