

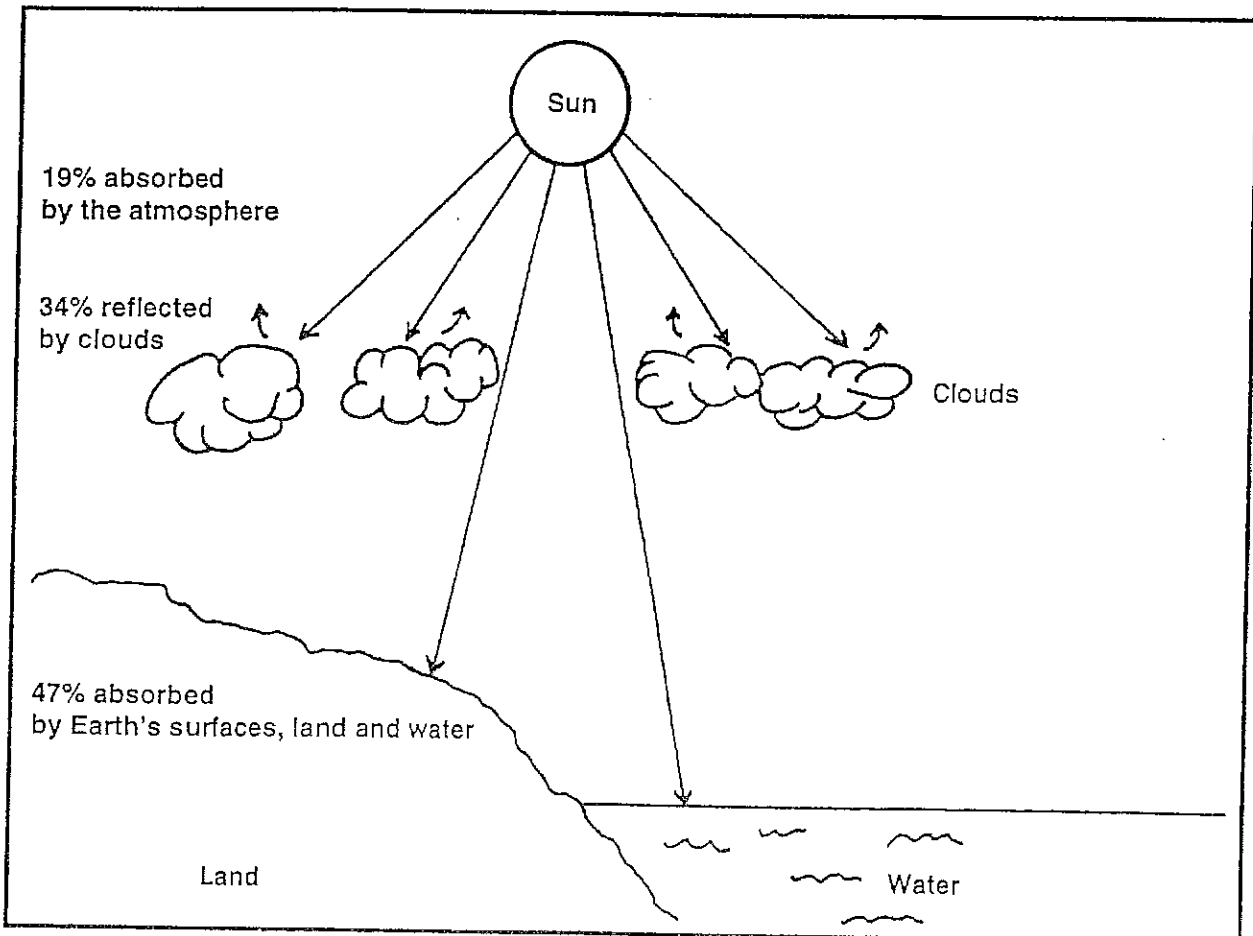
Factors of Weather: Temperature

Weather is the condition of the air around the Earth. Air pressure is one factor that determines the weather. Another property of air that can change is temperature, the warmth or coldness of the air.

Our sun is the source of heat for our planet. Of the tremendous amount of energy radiated from the sun, only a small percentage of the heat actually enters the Earth's atmosphere. The rest of the heat is lost in space.

Scientists believe that three things may happen to the sunlight that enters Earth's atmosphere. Thirty-four percent of it is reflected away from the Earth's surface by clouds. Nineteen percent is absorbed by the atmosphere. This sunlight warms the air. The remaining 47 percent is absorbed by Earth's surfaces, land and water, and warms them. The Earth's surfaces, in turn, are responsible for warming the portion of the atmosphere closest to them.

The Earth's atmosphere acts like a greenhouse. A greenhouse is designed to let in as much light as possible. The light warms the plants, encouraging their growth. A greenhouse is also designed to prevent heat from escaping. The Earth's atmosphere lets sunlight through to heat the planet and encourage the survival and growth of its organisms. The atmosphere also prevents most of the heat from escaping and getting lost in space.



Three things happen to the small percentage of sunlight that enters Earth's atmosphere.

Name _____ Date _____

For the student:

1. What is the source of heat for Earth?

2. What happens to MOST of the heat radiated from the sun?

3. What happens to MOST of the sunlight that enters Earth's atmosphere?

4. What does heat radiated from Earth's surfaces do?

5. How does a greenhouse promote, or encourage, the growth of plants?
