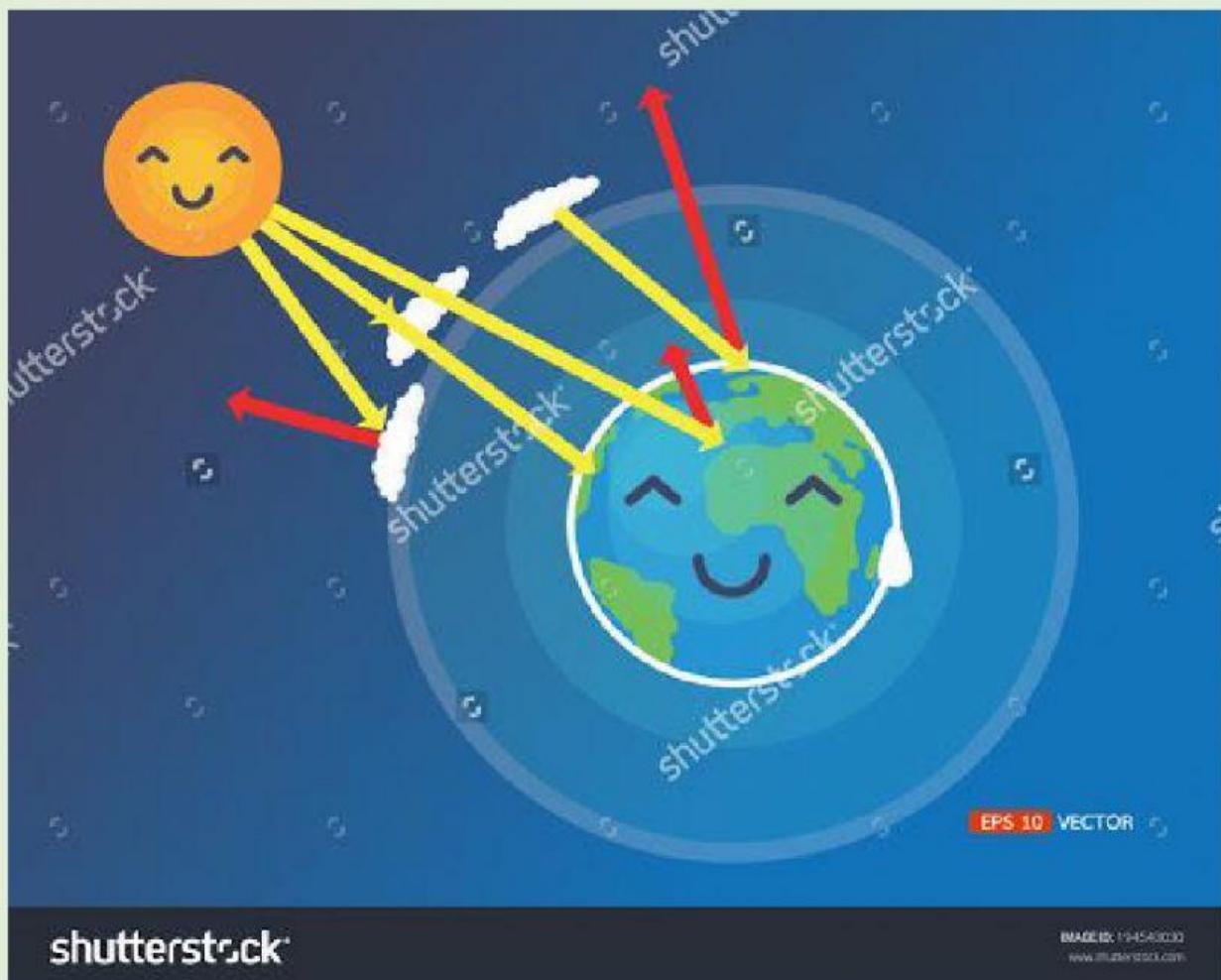




SCIENCE
CHAPTER 9-WEATHER AND CLIMATE
LESSON 1- AIR AND WEATHER
PART 2



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Created by- Nisha Tanwar

WHAT IS WEATHER

Weather is the condition of the atmosphere at a given time and place.

IMPORTANT ELEMENTS OF WEATHER →

1. TEMPERATURE → HOW HOT OR COLD SOMETHING IS

- When the Sun's energy heats Earth's surface, the surface warms the air above it. The air moves.
- The uneven heating of Earth's surface causes air to move at different speeds.
- Moving air is called wind

2. HUMIDITY → HOW MUCH MOISTURE IS IN THE AIR

- Deserts usually have very low humidity.
- Rain forests have very high humidity.
- Air always has some amount of moisture. Most of the moisture comes from ocean water that changes into a gas.
- The rest comes from bodies of water, soil, and plants.

3. **AIR PRESSURE → FORCE OF AIR PUSHING ON AN AREA**

- Particles of cool air are closer together than particles of warm air.
- In the same amount of space, cool air weighs more than warm air.
- Warm air is less dense, or packed together, than cold air. As air warms, its pressure decreases.
- Air moves from an area of high pressure to an area of low pressure

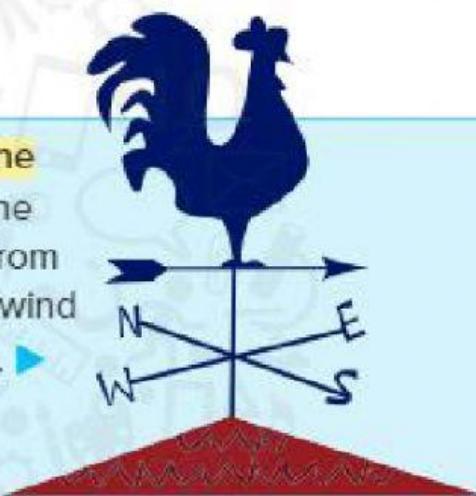
4. **PRECIPITATION → ANY FORM OF WATER THAT FALLS FROM CLOUDS. RAIN. SNOW. HAIL, SLEET**

WATCH VIDEO ABOUT ELEMENTS OF WEATHER

HOW YOU CAN MEASURE WEATHER

1.

A wind vane points in the direction from which the wind is blowing. ►

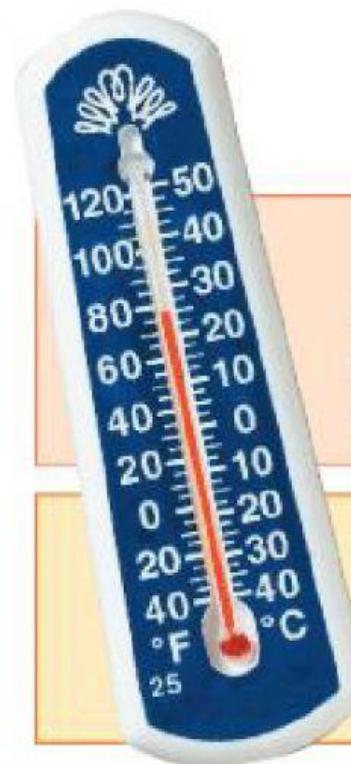


2.

An anemometer (a-nuh-MAH-muh-tur) measures wind speed. The faster the wind blows, the faster the cups spin. ▼



3.



A hygrometer
(hi•GRAH•muh•tur)
measures humidity. ▲

4.

◀ A thermometer measures
air temperature in
degrees Celsius (°C) or
degrees Fahrenheit (°F).

5.

A barometer
measures air
pressure. ►



6.



◀ A rain gauge (GAYJ) is a tube
that collects water. It shows the
amount of rainfall.

PRACTICE QUESTIONS:

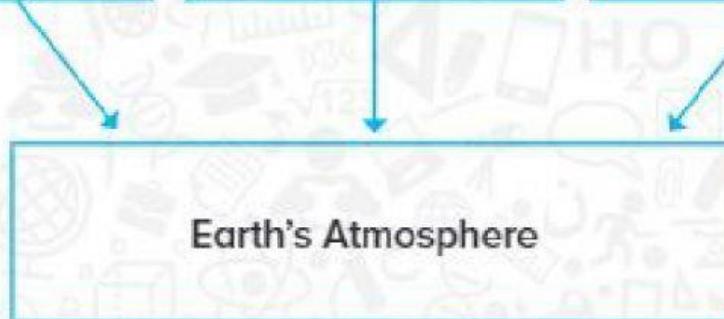
1. Which layer of the atmosphere is thickest?

TYPE YOUR ANSWER

2.



Summarize What gases make up Earth's atmosphere?



2. **Test Prep** In which layer of the atmosphere do we experience weather?

- A** thermosphere
- B** mesosphere
- C** stratosphere
- D** troposphere

4.

In which layer of the atmosphere do organisms live?

- A thermosphere
- B mesosphere
- C stratosphere
- D troposphere

5. Blanket of air surrounding the earth is called _____.

6.

What tools could you use to measure the weather?

TYPE YOUR ANSWER



7. A(n) _____ measures the speed of the wind.

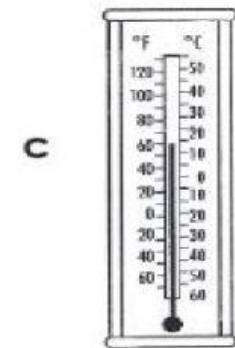
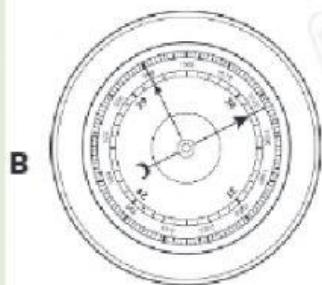
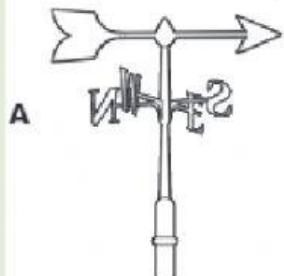
8.

Look at the picture. What does this tool measure?

- A. precipitation
- B. wind direction
- C. wind speed
- D. air pressure



9. Which tool can be used to measure air temperature?



9. The pattern of seasonal weather in a region over many years is called _____

10.

CLICK ON THE ARROW FOR MORE PRACTICE

