

**ST. ANDREWS SCOTS SCHOOL**  
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**Session: 2025-2026**

<b>CLASS: VII</b>	<b>SUB: SOCIAL SCIENCE</b>	<b>TOPIC: GEOGRAPHY</b>	<b>CH-4</b>
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**Atmosphere**

**A. Multiple Choice Type Questions**

1. The blanket of air that encompasses the Earth is called \_\_\_\_\_. **Atmosphere**
2. Atmosphere is held in its place by \_\_\_\_ pull. **gravitational**
3. \_\_\_\_ gas is released by plants while making their food by the process of photosynthesis. **oxygen**
4. This layer is also called ionosphere. **Thermosphere**
5. The upper limit of stratosphere is called \_\_\_\_ **stratopause**

**B. Fill in the blanks with appropriate words and phrases:**

1. **Ozone** gas protects us from harmful radiations of the sun.
2. We need **oxygen** to breathe.
3. Plants take **nitrogen** with the help of bacteria.
4. **Weather** keeps changing over a short period of time.
5. **Anemometer** measures the speed of wind.

**C. State whether the following statements are 'True Or 'False'**

1. Direction of smoke can help us find the direction of wind. **True**
2. Atmosphere control the temperature on the Earth. **True**
3. Atmosphere is divided into eight concentric circles. **False**
4. Nitrogen is the most abundant gas. **True**
5. Hydrogen and Helium float into space from exosphere. **True**

**D. Short Answer Type Questions:**

1. **What is atmosphere?**

The blanket of air that surrounds the earth is called atmosphere.

2. **Which two gases make the bulk of the atmosphere?**

Nitrogen and Oxygen are the two gases that make the bulk of the atmosphere.

3. **What is humidity?**

Water becomes water vapour when it evaporates from the Earth's surface and various waterbodies. This moisture present in the air is called humidity.

4. **What is pause?**

Each layer of atmosphere has a zone of marked changes in the composition and temperature called pause.

5. **What do you understand by insolation?**

Insolation is the incoming solar energy intercepted by the Earth in a given period of time. It influences the distribution of temperature.

**E. Long Answer Type Questions:**

1. **Write about the composition of atmosphere.**

The Earth's atmosphere is made up of a mixture of gases. Nitrogen and oxygen are the two most important gases in the atmosphere and make the bulk of it. Nitrogen makes 78% of the atmosphere, whereas oxygen constitutes 21% of the atmosphere. The remaining gases are – carbon dioxide, water vapour, argon, helium, krypton, xenon and ozone. The density of this mixture is highest near the sea level and gradually becomes less with an increase in altitude.

2. **Differentiate between weather and climate.**

Weather	Climate
This is the state of atmosphere of a given area over a short period of time.	This is the state of atmosphere of a given area over a long period of time.
Elements of weather are — temperature, humidity, pressure, precipitation or rainfall.	Elements of climate are also temperature, humidity, pressure, precipitation or rainfall, but for a longer period of time or duration.
Small variation in any of the elements may change the weather.	Small variation in any of the elements over a short period of time does not affect the climate.
Weather conditions of a place change daily.	Climate of a region changes with seasons.

3. **Explain the different types of winds.**

Winds are of three types— permanent winds, seasonal winds and local winds.

Permanent Winds

Permanent winds blow continuously in a specific direction throughout the year. The trade winds, the westerlies and the polar easterlies are permanent winds.

#### Seasonal Winds

When there is a change in seasons, these winds also change their directions. For example, the monsoon winds or the winter winds.

#### Local Winds

These types of winds only blow during a specific period of the day or during a specific period of a year. For example, the land and the sea breeze. Loo is also an example of such type of wind.

#### 4. In what ways is the atmosphere important to us?

- i. Atmosphere is important for both plants and animals as it has life sustaining gases like oxygen and carbon dioxide.
- ii. Weather phenomena take place on the Earth due to dust particles and water vapour present in the atmosphere.
- iii. It also controls the temperature of the Earth.
- iv. The ozone layer in the atmosphere protects us from harmful ultraviolet radiations.
- v. Sound waves travel through the atmosphere.

#### 5. Write a short note on air pressure.

The pressure exerted by the weight of air on the Earth's surface is known as air pressure. This pressure reduces rapidly as we go up in the layers of atmosphere. The pressure is maximum at the sea level. In places where the temperature remains high, the air gets heated and therefore rises up. This creates a low-pressure area and often results in cloudy skies with precipitation or rain.

Similarly, in places with low temperature the air remains cold and therefore heavy. This heavy air sinks and creates high pressure area. This type of condition is associated with clear sky. To balance the atmospheric pressure, the air moves from high pressure area to low pressure area.