

Air Masses

Formation of Air Masses

An air mass is a batch of air that has a uniform temperature and humidity. An air mass acquires these characteristics from the land or water that it is above. Air masses are very large and form in high-pressure zones such as polar and tropical regions. Temperate regions are too unstable for air masses to form, creating unique weather in these areas.

Study Tip

The different types of air masses are like different moods. Depending on an air mass's humidity and temperature, it can bring warm, friendly weather, or cold, icy storms.

Air Mass Movement

Air masses move when they are pushed by high-powered winds. Once they move, they gain new characteristics based on the area they are positioned over.

Storms are caused when an air mass moves over a region with different characteristics. For example, warm air masses moving over cold landmasses cause storms. Cold air masses tend to flow towards the equator and warm air masses tend to flow toward the poles. This helps balance the temperature of the earth.



Large air masses are moving over the ocean and land.



A thunderstorm is caused when an air mass flows over a landmass with a different temperature.

Concept Check

- What is an air mass?
- How are storms formed?
- Where do warm air masses generally flow towards?