Name _____

The Ever-Changing Weather: Why Does It Change from Day to Day?

Short Answer Key

1. Air masses contribute to changes in weather by bringing different temperature and humidity conditions. When a warm, moist air mass meets a cold, dry one, it can lead to the formation of clouds and precipitation.
2. The water cycle describes how water evaporates from the Earth's surface, rises into the atmosphere, cools, condenses into clouds, and falls back to the ground as precipitation. It plays a significant role in weather patterns by providing moisture for rain, snow, and other forms of precipitation.
3. A warm front occurs when warm air moves over cold air, often bringing steady rain. A cold front forms when cold air advances and replaces warm air, leading to rapid weather changes like thunderstorms.
4. The tilt of the Earth's axis causes variations in the angle at which sunlight reaches different parts of the Earth during different seasons. This angle affects temperature and weather patterns, leading to the changing of seasons.
5. Meteorologists face challenges such as the complexity of the atmosphere, the influence of small-scale events, and the need for accurate data. They use tools like weather instruments, satellites, radar systems, and computer models to gather and analyze data for weather prediction.