

AIR PRESSURE, AIR MASSES, AND WEATHER FRONTS

A large body of air that has properties similar to the part of Earth's surface over which it develops is an air mass. A warm air mass is less dense than a cold air mass.

Weather fronts are formed when air masses with the different temperatures meet. When a warm air mass replaces a cold air mass the temperatures will rise.

Seattle, Washington is on the north Pacific coast of the U.S. Seattle is a rainy city because air currents bring evaporated moisture from the ocean to Seattle. Hawaii is in the middle of the Pacific Ocean. Hawaii is warm and humid due to the influence of the warm and humid conditions of the ocean and its location close to the equator. Air masses moving across the deserts of the United States toward the East Coast most likely bring hot and dry conditions to North Carolina.

An approaching cold front will produce brief periods of heavy precipitation. The passing of a cold front is most likely to cause cloudy skies to clear and temperatures to drop. A stationary front occurs when a warm air mass and a cold air mass meet but neither front has enough energy to push against the other.

Cold fronts move quickly. Warm fronts move more slowly. Stationary fronts do not move much at all. Stationary means "unmoving," after all. Occluded fronts can move quickly, too, but their weather patterns can last for days.

Wet and stormy weather is usually found in low pressure areas. Rainy weather will most likely occur when the atmospheric pressure in an area begins falling. Sunny and clear weather is usually found in high pressure areas.

Students in Mrs. Mueller's class observe the air pressure daily. Over the last couple of days the air pressure has been increasing. The weather the class will most likely observe as a result would be increasingly clear skies and dry weather.

