

Global Wind Systems

Ms. Larsh

Causes of wind include . . .

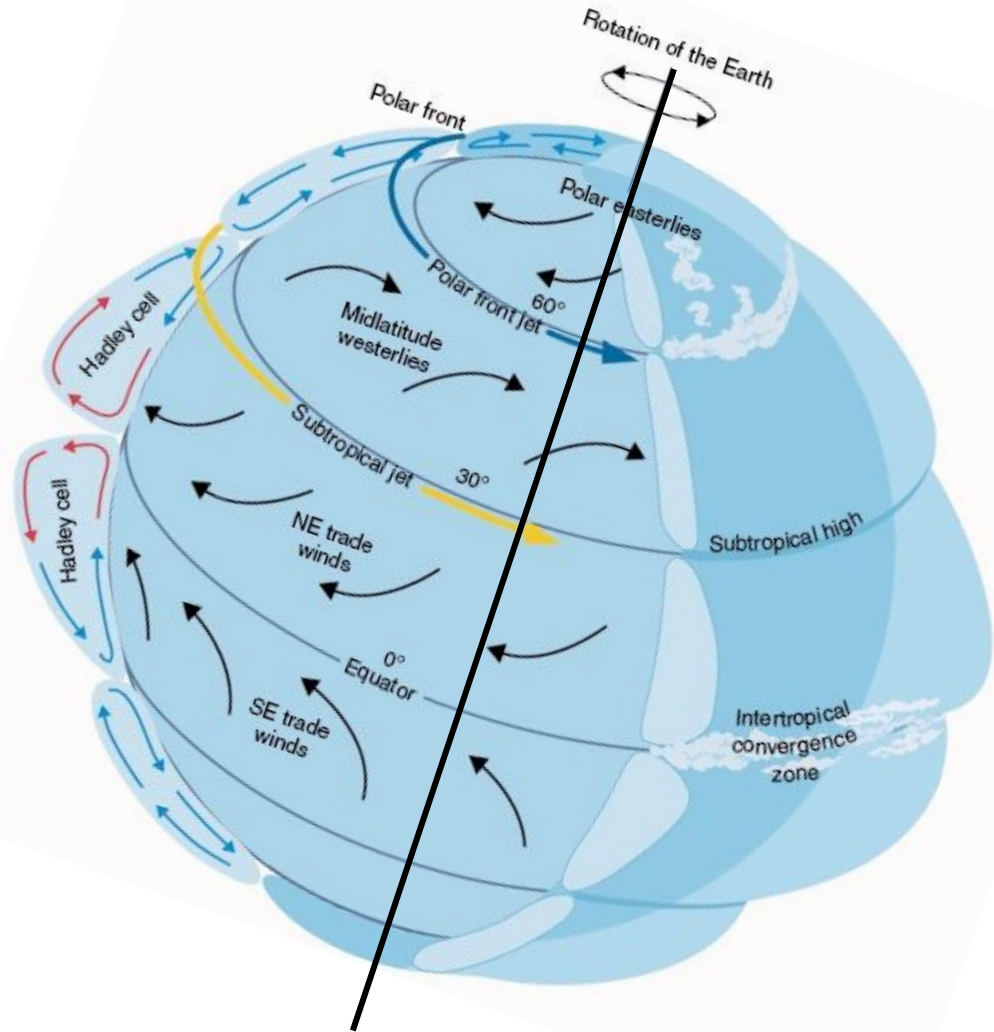
differences in air pressure



& the **uneven** heating of Earth's surface

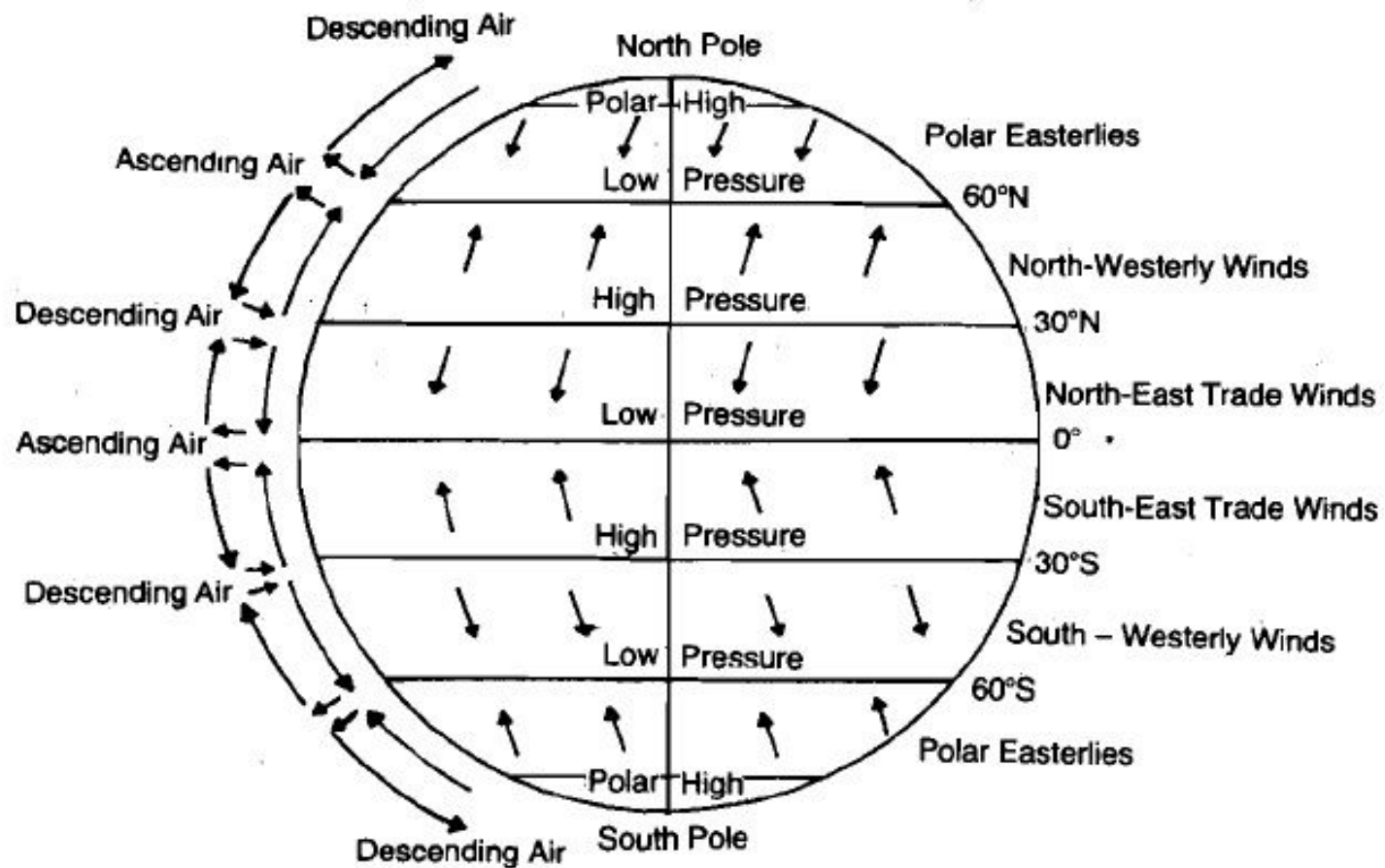
Earth rotates
counter-clockwise on its
tilted axis around the sun

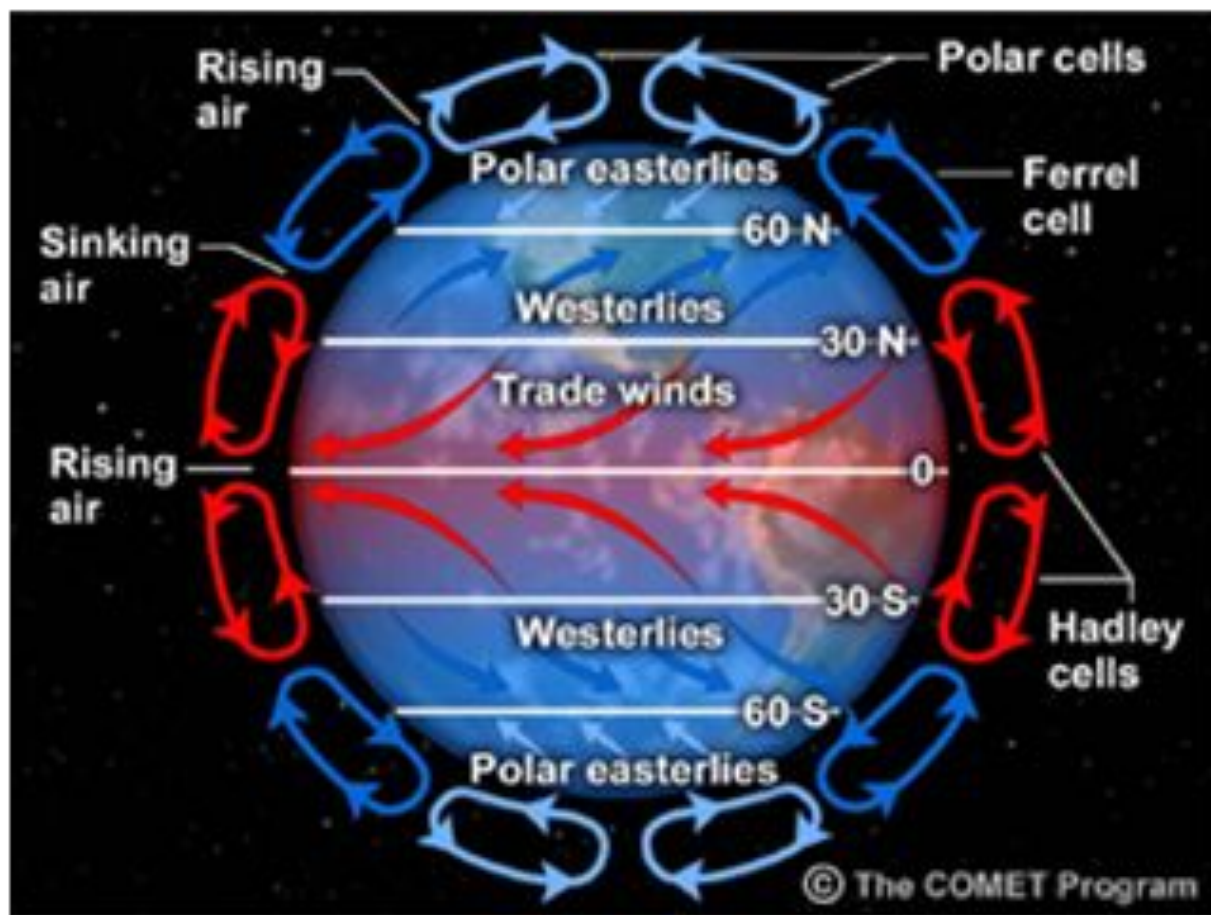
Earth's 23.4 degree tilt
causes the seasons as
different parts of Earth
receive more solar energy
than others



Earth's Global Wind Systems

Wind System	Location	Path
Trade Winds (Hadley Cell)	<ul style="list-style-type: none">• Located between the equator & latitudes 30° N and 30° S	<ul style="list-style-type: none">• Warm air at the equator rises and travels outward• Surface winds that blow from E to W toward the equator
Prevailing Westerlies (Ferrel Cell)	<ul style="list-style-type: none">• Located between latitudes 30° N and 60° N, and 30° S and 60° S	<ul style="list-style-type: none">• Air circulation opposite of trade winds• Surface winds that blow from W to E towards the poles
Polar Easterlies (Polar Cell)	<ul style="list-style-type: none">• Located between 60° N latitude and the North Pole, and 60° S latitude and the South Pole	<ul style="list-style-type: none">• Air circulation similar to trade winds• Surface winds that blow from E to W and away from the poles





Jet Streams

Narrow bands of fast moving winds that change positions with each season

The Jet Stream is Fueled by Opposing Global Wind Systems & Air Masses

