

Name: _____

Key

Devator example

Period: _____

Atmospheric Pressure and Winds

1. What is wind? How does wind develop?

wind = flow of a huge amount of air, usually from a high pressure → low pressure area as a result of convection

2. How is a convection current produced in the air?

As air particles are heated, they become less dense (b/c they move further apart) and rise. As air particles are cooled, they become more dense (b/c they move closer together) and sink.

3. How can air become

- a. More dense?

colder, ↓ altitude

- b. Less dense?

warmer, more water vapor, ↑ altitude

4. What kind of weather is associated with

- a. Low pressure

cloudy, stormy weather (L=lousy)
(air rises, cools down + condenses into precipitation/clouds)

- b. High pressure

fair, sunny weather (air sinks and air tends to dry out as it sinks → leaving sunny skies)

5. Why is sunlight more intense at the equator than at the poles?

Sunlight hits surface at a right angle, so light is more intense (most direct)

6. On the model of the Earth, show what the circulation cells look like in the Southern Hemisphere. Draw them in on the edge of the globe.

7. Label either high or low pressure for the air masses (remember air moves **towards** areas of low pressure).

a. At 30° N, 60° N, 90° N

b. At 30° S, 60° S, 90° S

8. Label the winds in the Southern hemisphere.