



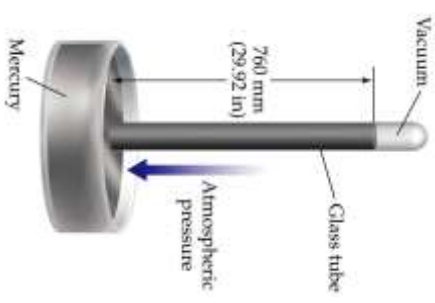
Topic: Atmospheric Variables

Aim: What factors affect air pressure?

Air Pressure / Atmospheric Pressure / Barometric Pressure:

The force (weight) of the atmosphere on the surface of the Earth.

Instrument: barometer

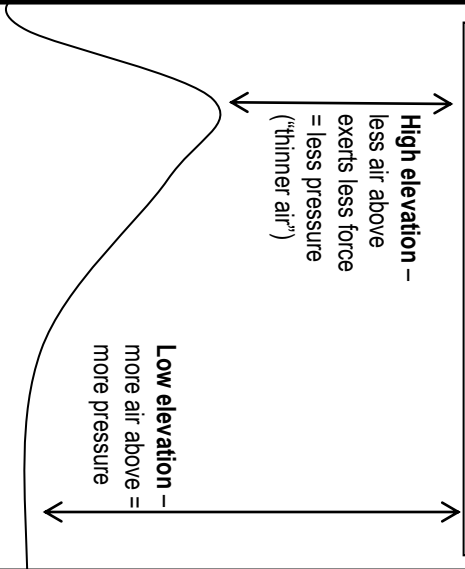


1. ELEVATION / ALTITUDE

As elevation increase, atmospheric pressure decreases.

High elevation –
less air above
exerts less force
= less pressure
("thinner air")

Low elevation –
more air above =
more pressure



2. TEMPERATURE

As temperature increases, air pressure decreases because warmer air is less dense and does not exert as much force on Earth's surface.

3. HUMIDITY (moisture in the air)

As humidity increases, atmospheric pressure decreases because water vapor is lighter than dry air molecules (nitrogen and oxygen) making the overall weight of the air less.

Summary:*Special Study Note for Pressure: When one weather variable changes, air pressure will usually do the opposite****