Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_

Atmosphere and Wind Notes

* The Earth’s atmosphere is made up of \_\_\_5 different layers and a mixture of different gasses\_\_\_.
* The atmosphere is not \_uniform\_\_\_\_( or the same all the way through).
	+ It’s \_\_properties\_\_ change with \_\_\_altitude\_\_\_.
* The two properties that change are
	+ \_\_\_temperature\_\_ and \_\_pressure\_\_\_

 **Layers of the Earth from Earth to Space**

1. Troposphere
	* This is the \_\_\_\_layer closest to the Earth’s surface\_\_
	* \_0\_km to \_16 km
	* All weather happens in the troposphere.
	* Temperature \_drops\_ as altitude increases.
2. Stratosphere
	* \_16\_ km to \_\_50\_ km
	* Temperature \_increases\_ with altitude
	* Protective \_ozone layer\_ is at the top of the stratosphere.
	* \_jet streams\_ are found in this layer.
3. Mesosphere
	* Extends from \_\_50\_\_km to \_\_90\_\_km.
	* Temperature drops \_ with altitude.
	* \_Coldest\_ layer of the atmosphere.
	* Meteors burn up in this layer.
4. Thermosphere
	* Extends from \_90\_ km to \_300\_ km
	* Temperature \_increases\_ with altitude
	* \_Hottest\_ layer of the atmosphere.
	* Curtains of light called \_\_auroras \_\_ occur in this layer.
5. Exosphere
	* The outermost layer of the atmosphere.
	* Temperature goes \_\_down\_ with altitude.
	* \_Satellites\_\_ orbit the earth in the exosphere.

**Wind Notes**

* Cold air is more \_\_dense\_\_\_ than warm air.
* Air that is \_\_\_heated\_\_ rises.

**Land Vs Water**

* Land heats up \_\_\_\_faster\_\_\_\_ than water.
* Land cools off \_\_\_\_\_faster\_\_\_ than water.
* Water heats up \_\_\_slower\_\_\_\_ but \_holds on to\_\_ heat better than land.

**Wind**

* The movement of air caused by differences in \_\_\_air pressure\_\_\_\_ is wind.
* Areas of \_High\_ pressure will always move towards areas of \_Low pressure.
* The greater the differences in \_\_air pressure\_\_ the \_\_stronger\_\_ the wind moves.
* Air \_rises at the equator and \_\_sinks\_ at the poles.
* The Coriolis Effect causes the wind to \_\_curve\_\_.

**Global Winds**

* Global winds are created by \_\_unequal heating\_\_ of Earth’s surface.
	+ direct sunlight
	+ \_indirect\_sunlight
* Global winds blow \_steadily\_ from specific directions over \_\_long\_ distances.
* Global convection currents are caused by the differences in direct and indirect light.

**Local Winds**

* Local winds blow over \_short distances
* They are caused by \_unequal\_ heating within small areas; near mountains or water.
* Two specific local winds we will talk about :

|  |  |
| --- | --- |
| Sea Breeze* When wind blows from the \_sea\_\_\_ towards the \_\_land\_\_.
* This happens in the \_day\_ when \_\_land\_ is warmer than the \_water\_\_.

LandWarm AirLow PressureWaterCool AirHigh PressureWind | Land Breeze* When wind blows from the \_land\_ towards the \_sea\_.
* This happens at \_night\_ when the \_land\_ cools more quickly than the \_\_water\_\_.

LandCool AirHigh PressureWaterWarm AirLow PressureWind |