Characteristics of the Earth’s Atmosphere Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Number \_\_\_\_

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_

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| ***MAIN POINTS*** | ***EVIDENCE/DETAILS*** |
| **Properties of Air** | * Air has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Air also has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
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| **Density** | * The amount of mass in a given volume of a substance
* Density =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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| **Altitude and Air Pressure** | * Like elevation, altitude is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ above sea level
* Altitude is related to \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* As altitude rises, air pressure drops because of gravity and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* As altitude increases, the amount of \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the air decreases. This is what meteorologists mean by “thin air”.
* High-altitude locations are much colder than areas closer to sea level. This is due to the \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Air \_\_\_\_\_\_\_\_\_\_\_\_\_\_ as it rises, and the fewer gas molecules have fewer chances to bump into each other.
* Decreased air pressure means that less \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is available for breathing. This is why mountain climbing is so difficult.
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| **Air Pressure or** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_** | * Air molecules are constantly moving and bouncing off of each other. Each time they bounce off an object, they push or exert a force on that object.
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the weight of a column of air pushing down on an area.
	+ Changes in air pressure cause changes in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Air pressure is measured with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Air pressure \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as altitude \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and air pressure \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as density \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
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| **Atmosphere** | Envelope of gas that surrounds the Earth.The atmosphere supports life by:* Absorbing \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the sun
* Trapping \_\_\_\_\_\_\_\_\_, making Earth \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ enough for life
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| **Composition of the Atmosphere** | * Earth’s early atmosphere was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and would not support the \_\_\_\_\_\_\_\_ on Earth today.
* Over time, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ added \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the air.
* Eventually the composition of the Earth’s atmosphere became…

**Composition of the Atmosphere** • \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_% • With trace amounts of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Neon, • \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_% Helium, Krypton, Xenon, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, • \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ <\_\_\_\_% Ozone and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ • \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ <\_\_\_\_% (dust, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, salt)List three dramatic events that can cause sudden changes to the atmosphere. Describe the effects of each.* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:
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| **Ozone** | * Ozone is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and form of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.Ozone molecules are made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ oxygen molecules bonded together.
* Ozone occurs naturally in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is important because it helps \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ out \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the sun.
* Without an ozone layer, Earth’s surface would become too \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for human, plant and animal life.
* About \_\_\_\_\_\_% of ozone is found in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Some of it occurs naturally, but most is human-caused.
* Ozone in the troposphere can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the environment because it acts as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_. Ozone in the troposphere can block terrestrial radiation and trap it above Earth’s surface.
* Over time, this can cause \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_on Earth to increase causing organisms to die.
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| **Layers of the Atmosphere** | * The atmosphere stays in place around the Earth due to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The layers of the atmosphere are determined by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, composition, movement and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
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