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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| **Density** | * The amount of mass in a given volume of a substance * Density =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **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. |
| **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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| **Atmosphere** | Envelope of gas that surrounds the Earth.  The atmosphere supports life by:   * Absorbing \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the sun * Trapping \_\_\_\_\_\_\_\_\_, making Earth \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ enough for life |
| **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.   * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: |
| **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. |
| **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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |