**Importance & Composition of the Atmosphere**

*What is the atmosphere made of?*

1. **Atmosphere**- 
   1. Made of nitrogen, oxygen, carbon dioxide, water vapor, other gases and particles.
2. of the atmosphere is made of Nitrogen and       of the atmosphere is made of Oxygen
3. Three jobs of the atmosphere

**Layers of the Atmosphere**

*Describe the layers of the atmosphere.*

1. **Troposphere**-
2. **Stratosphere**- 
   1. **Ozone-** a pale blue gas that absorbs radiation from the Sun and protects the surface of the Earth.
3. **Mesosphere**-
4. **Thermosphere**- 
   1. **Ionosphere**- 80-550km, Radio waves bounce off of electrically charged molecules, contains Aurora Borealis
   2. **Exosphere**- above 550 km, satellites orbit here

**Energy in the Atmosphere**

*How does energy travel through the atmosphere? What happens to energy when it reaches Earth?*

1. **Electromagnetic waves**-
2. Some of the energy from the sun is
3. Most of the energy from the sun reaches the Earth in the form of 
   1. - mixture of all of the colors of light in the rainbow (ROYGBIV)
   2. - form of energy with wavelengths that are longer than red light

Ex. Heat lamps that keep food warm

* 1. - a form of energy with wavelengths that are shorter than violet light

Ex.- Causes Sunburns (Can causes DNA or cell damage)

1. When the Earth’s surface is heated, it radiates some of the heat back into the atmosphere.
2. - process by which gases in the atmosphere hold in heat.
3. Humans have impacted the greenhouse effect and added greenhouse gases that increase the temperature on Earth.
   1. Greenhouse gases are      .