

APES- Chapter #22- The Atmosphere, Climate and Global Warming

Name: _____

1) **Create a pie graph**- demonstrating the percent composition of Earth's atmosphere.
Make sure to label each part.

2) **Draw the layers of the atmosphere**- labeling each part- *make sure to label temperature and height above Earth.*

3) Define **Relative Humidity** and explain how it is measured.

4) Explain how **differential heating** of the Atmosphere causes the winds to blow.

5) Explain how the following processes remove materials from the atmosphere (*give an example of each*).

- *Sedimentation:*
- *Rain Out:*
- *Oxidation:*
- *Photodissociation:*

6) What is the difference between *weather and climate*?

7) What is a **microclimate**?

8) *Define and explain* how the **Milankovitch Cycles** can cause variations in climate over a long term.

9) *Explain* how the “**Ocean Conveyor Belt**” is responsible for climate and climate changes.

10) Name 3 ways that global climate change both in the past and in the present can be monitored:

- *
- *
- *

11) Explain the *Greenhouse Effect* and what causes it.

12) *Explain how* each of the following greenhouse gases contribute to the effects of global warming:

Carbon Dioxide

Methane

Nitrogen

Solar Forcing

Aerosol and Volcano Forcing

El Nino

Methane Forcing

13) What is *Polar Amplification*?

14) What are some **potential changes that could be caused by global climate change? Discuss:**

15) Explain how global climate changes now are seen as “**a canary in a coal mine**”.

16) Explain what causes **El Nino** and *what climate changes it brings*.

Summarize what you have learned about the atmosphere and how it is so important in understanding in order to understanding global warming and global climate change.