

Name: \_\_\_\_\_

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## **Weather & Climate Test 1 Study Guide**

### Vocabulary

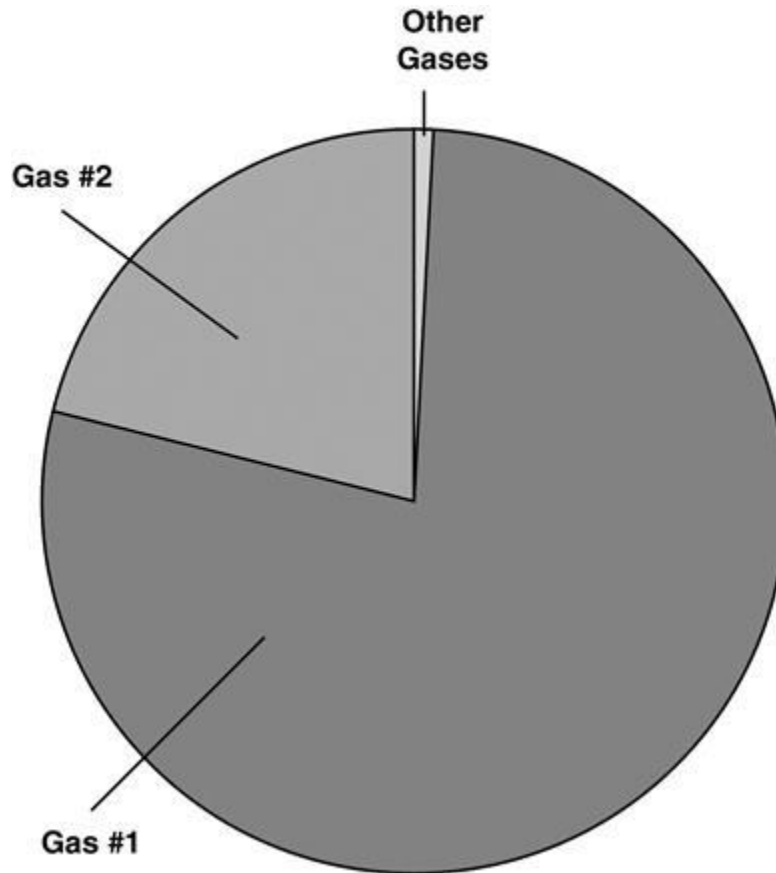
- Altitude
- Atmosphere
- Troposphere
- Stratosphere
- Mesosphere
- Thermosphere
- Ozone
- Ionosphere
- Exosphere
- Global Warming
- Greenhouse Effect
- Precipitation
- Condensation
- Evaporation
- Accumulation
- Transpiration
- Radiation
- Convection
- Conduction
- Meteorologist
- Runoff
- Water Vapor
- Groundwater
- Stratus
- Cumulus
- Cirrus

### Questions

1. Which trait is common in gases that contribute to Earth's greenhouse effect?
  - a. The ability to trap heat
  - b. A tendency to lose electrons
  - c. A tendency to exist as diatomic molecules
  - d. The ability to bond with multiple other elements
2. This circle graph shows the percentages of different gases in Earth's atmosphere.

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Which gas is represented by Gas #1?

- a. Carbon dioxide
  - b. Hydrogen
  - c. Nitrogen
  - d. Oxygen
3. In which layer of Earth's atmosphere does weather occur?
- a. Mesosphere
  - b. Stratosphere
  - c. Thermosphere
  - d. Troposphere

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4. Storms transport water in the form of rain. The energy that starts this process comes from which of these?
  - a. The oceans
  - b. The sun
  - c. Clouds
  - d. Earth
  
5. When is the MOST energy transferred from the Sun to water in the water cycle?
  - a. During collection
  - b. During evaporation
  - c. During condensation
  - d. During precipitation
  
6. Energy from the Sun causes evaporation. Why does more evaporation happen from the oceans than from freshwater sources?
  - a. Oceans have a greater surface area.
  - b. Salt water evaporates faster than fresh water.
  - c. The air over oceans can hold more water vapor.
  - d. Oceans touch more landmasses than freshwater sources.
  
7. State which layers of the atmosphere temperature *decreases* as the altitude increases.
  
8. State which layers of the atmosphere temperature *increases* as the altitude increases.
  
9. Which layer of Earth's atmosphere has the highest amount of pressure?
  - a. Troposphere
  - b. Stratosphere
  - c. Mesosphere

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d. Thermosphere

10. In which layer of the atmosphere do planes fly?

a. Exosphere

b. Thermosphere

c. Mesosphere

d. Stratosphere

Reference Page-What you should make sure you know

- The layers of the atmosphere.
  - How temperature changes through each layer of the atmosphere.
  - How pressure/density of the atmosphere changes in each layer.
- What percent of the atmosphere do different gases take up.
- What is the main effect of greenhouse gases.
- Ozone (O<sub>3</sub>) protects the earth from deadly solar radiation.
- Humidity is the measure of the amount of water vapor present in the air.
- The sun powers the water cycle.
- The ocean is the source of most evaporated water due to its large surface area and the direct sunlight it receives.
- The 4 steps to the water cycle and what each one means.