

Name _____ Date _____ Period _____

World of Chemistry Chapter 13 Reading Guide

Gases

Section 13.1 A

1. A gas _____ fills any container, is easily _____, and mixes _____ with any other gas.
2. Atmospheric pressure results from the _____ of air being pulled toward the center of the earth by _____.
3. Atmospheric pressure varies with _____.
4. The atmospheric pressure is less when the elevation is _____. This is because _____ air is pushing down on the earth's surface than at sea level.

Section 13.1 B

5. Boyle's Law states that the pressure of a given sample of a gas is _____ related to the volume of the gas at a constant temperature. When pressure increases, volume _____. When pressure decreases, volume _____.

Section 13.1 C

6. Charles's Law states that the volume of a given sample of a gas is _____ related to the temperature of the gas at constant pressure. When the temperature of a gas increases, the volume of the gas _____. When the temperature of a gas decreases, the volume of the gas _____.

Section 13.1 D

7. Avogadro's law states that for a gas at constant temperature and pressure, the volume is directly proportional to the _____ of gas.

Section 13.2 A

8. The formula for the ideal gas law is _____. R is the universal gas _____. When the pressure is expressed in _____, the volume is expressed in _____, R is equal to _____ (L atm)/(mol K).

Section 13.2 A

9. Dalton's law of partial pressure states that for a mixture of gases in a container, the total pressure exerted is the _____ of the partial pressures of the gases present.
10. The molar volume of an ideal gas is _____ at STP.

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