

Chemistry CP

Name: _____

Homework: Gases (Chapters 10 and 11)

Section: _____

Assignment	Due Date
1. Complete Virtual Lab Parts 1 and 2	Tuesday, 3/12
2. Complete Boyles' Law Worksheet (if not finished in class)	Wednesday, 3/13
3. Work on Virtual Lab Parts 3 and 4	
4. Finish Charles' Law Worksheet (if not finished in class)	Thursday, 3/14
5. Work on Virtual Lab Part 5 and 6	
6. Combined Gas Law problem set (not the one from class!)	Friday, 3/15
7. Study for quiz on the gas laws Suggestions: p. 325 #1-5 or online HW site #25, 26, 27 http://chemistry2.csudh.edu/homework/hwintro.html	
8. Read pp. 333-337 in textbook	Monday, 3/18
9. p. 329 #39-41	
10. Finish ideal gas law handout from class	Tuesday, 3/19
11. Complete p. 329 #45-49	
12. pp. 358 #17, 18, 23, 24	Wednesday, 3/20
13. Complete p. 359 #45-48	Thursday, 3/21
14. Study for FFF#13: Gases	Friday, 3/22
15. Formal lab report for Molar Volume of a Gas lab	Wednesday, 3/27

Dates to Remember:

Gas Laws Quiz Friday, 3/15

Gases Test Friday, 3/22

After studying chapters 10 and 11, you should be able to:

- Describe the motion of particles of a gas according to the kinetic theory.
- Relate that the temperature of a substance is a measure of the kinetic energy of the particles in that substance.
- Distinguish between real and ideal gases.
- Interpret gas pressure in terms of kinetic theory.
- Determine the pressure of a confined gas using open and closed manometers.
- Convert between different units of pressure.
- Calculate pressure or volume from the pressure-volume relationship of a contained gas at constant temperature.
- Calculate temperature or volume from the temperature-volume relationship of a contained gas at constant pressure.
- Calculate temperature or pressure from the temperature-pressure relationship of a contained gas at constant volume.
- Calculate pressure, volume, or temperature from the temperature-pressure-volume relationships of confined gases.
- Calculate the total pressure of a mixture of gases or the partial pressure of a gas in a mixture of gases.
- Calculate the amount of gas at any specified conditions of pressure, volume, and temperature.
- Explain, using kinetic theory, why molecules of small mass diffuse more rapidly than molecules of large mass.

Some Useful Websites:

<http://www.chemtutor.com/gases.htm>

<http://www.grc.nasa.gov/WWW/k-12/airplane/Animation/frqlab2.html>

<http://www.wwnorton.com/college/chemistry/gilbert2/chemtours.asp> some good tutorials: see Ideal Gas Law and Dalton's Law

<http://www.chm.davidson.edu/ChemistryApplets/index.html#GasLaws>

<http://www.tps.k12.mi.us/staff/eferwerda/chqu/mc-9-10-33-42.htm> online quiz on gas properties

<http://chemed.chem.purdue.edu/genchem/topicreview/bp/ch4/kinetic4.html> good review of the gas laws

http://preparatorychemistry.com/Bishop_KMT_frames.htm animations; use frame on left to review specific gas laws, too

http://www.mhhe.com/physsci/chemistry/animations/chang_7e_esp/gam2s2_6.swf animations to explore gas properties

http://chemed.chem.purdue.edu/demos/main_pages/4.4.html movies

<http://www.chm.davidson.edu/ChemistryApplets/KineticMolecularTheory/BasicConcepts.html> animation

http://chemwiki.ucdavis.edu/Physical_Chemistry/Physical_Properties_of_Matter/Gases/Kinetic_Theory_of_Gases

<http://chemistry.bd.psu.edu/jircitano/gases.html>

<http://www.shodor.org/unchem/advanced/gas/>