

Chemistry CP

Name:

Acids and Bases Assignment Sheet

Section:

Assignment	Due Date
1. Group formal lab report for Lechatelier's principle lab	Friday, 5/17
2. Virtual pH Lab	Monday, 5/20
3. Handout on Bronsted-Lowry theory and pH calculations	Wednesday, 5/22
4. Worksheet on pH problems	Thursday, 5/23
5. Study for quiz on pH problems	Friday, 5/24
6. Handout: strong vs. weak acids	
7. Handout on neutralization reactions	Tuesday, 5/28
8. Titration problems handout	Wednesday, 5/29
9. Watch video on titration technique	
10. Review Sheet	Thursday, 5/30
11. Study for FFF#18	Friday, 5/31
12. Webcast on oxidation numbers —complete google form	Monday, 6/3
13. <i>Acid-Base Titration</i> Lab Report (individual, formal!)	Wednesday, 6/5

Dates to remember:

Quiz on pH calculations: Friday, 5/24

FFF#18: Friday, 5/31

After studying this unit, you should be able to:

- List properties of acids and bases.
- Classify a solution as neutral, acidic, or basic, given the hydrogen ion or hydroxide ion concentration.
- Calculate the pH of a solution given the hydrogen-ion or hydroxide-ion concentration.
- Calculate the hydrogen-ion or hydroxide-ion concentration given the pH of a solution.
- Define and give examples of Arrhenius acids and bases.
- Classify substances as acids or bases, and identify conjugate acid-base pairs in acid-base reactions according to Bronsted-Lowry theory.
- Distinguish between strong and weak acids and bases using the extent of ionization and the dissociation constants.
- List the components of a buffer and explain why a buffer resists changes in pH.
- Demonstrate knowledge of neutralization reactions by writing and balancing complete equations.
- Explain the steps of a titration and use titration data to calculate the molarity of an unknown solution.

Useful Websites

http://www.visionlearning.com/library/module_viewer.php?mid=58

<http://web.fccj.org/~ethall/acidbase/acidbase.htm> acid-base theories

<http://web.jjay.cuny.edu/~acarpi/NSC/7-ph.htm>

<http://www.science.uwaterloo.ca/~cchieh/cact/c123/wkacids.html>

<http://www.science.uwaterloo.ca/~cchieh/cact/c123/stacids.html>

<http://chemistry.about.com/od/acidsbases/>

http://nobel.scas.bcit.ca/chem0010/unit10/10.4_neutralization.htm

<http://www.elmhurst.edu/~chm/vchembook/183neutral.html>

<http://www.wwnorton.com/college/chemistry/gilbert2/chemtours.asp>

<http://www.dartmouth.edu/~chemlab/techniques/titration.html>

<http://www.ausetute.com.au/titrcalc.html> titration calculations