**Name** _____

**Date** _____ **Pd** ____

# Chemistry – Unit 14 Objectives

By the time we finish this unit, you should be able to do these:

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| 1. Describe properties of aqueous solutions of acids and bases. | |
| 2. Account for differences between acids and bases in terms of the Arrhenius model. | |
| 3. Use the Bronsted-Lowry model of acids and bases to identify the proton donor, proton acceptor, conjugate acid and conjugate base in a given equation. | |
| 4. Describe strength of weak acids and bases in terms of the extent to which they compete with water for $H^+$ ions. | |
| 5. Distinguish "concentrated" from "strong" and "dilute" from "weak" as these terms are used to describe acids and bases. | |
| 6. Given the mass (or number of moles) of a known strong acid or strong base and the total volume of solution, calculate the $[H_3O^+]$ and $[OH^-]$. | |
| 7. Describe indicators as | |

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| weak acid/base mixtures whose acidic and basic forms have different colors. | |
| 8. Recognize that pH is a way of describing the $[H_3O^+]$ of solutions using a logarithmic scale. Given the $[H_3O^+]$ or pH, calculate the other. | |
| 9. Identify the endpoint of a titration as the point at which the rate of change of $[H_3O^+]$ is greatest. | |
| 10. Given the volume and concentration of known acid (or base) used to titrate a base (or acid), calculate the concentration of the unknown solution. | |