

Section 19.1 Review

Honors Chemistry

1. Name that Acid:

- a. HF: Hydro Fluoric
- b. HNO₃: Nitric
- c. H₃PO₄: Phosphoric
- d. HCN: Hydro cyanic
- e. H₂SO₃: Sulfurous
- f. H₂SO₄: Sulfuric
- g. HI: Hydro iodic
- h. H₃PO₃: Phosphorous
- i. H₂CO₃: Carbonic
- j. HCl: Hydrochloric
- k. H₂S: Hydrosulfuric
- l. HC₂H₃O₂: Acetic
- m. HBr: Hydro Bromic

2. What happens to blue litmus paper in the presence of a base? NOTHING

3. Compare dilute and concentrated acids.

Dilute: Low molarity

Concentrated: High molarity

4. What type of acid is found in apples? Malic

5. Which type of acid is found in citrus fruits? Citric

6. What does corrosive mean? eat or wear away
7. When a base and acid react, they form water and Salt.
8. A Lewis Acid is able to accept an electron pair.
9. A conjugate base forms when a acid donates a Hydrogen.
10. According to Bronsted & Lowry, an acid is a H⁺ donor.
11. Arrhenius states that a base produces OH⁻ in an aqueous solution.
12. Substances that act as a base or an acid are called amphoteric.
13. Explain what anhydrous acids and bases are and give examples.

Oxides that become acids or bases when reacting with water

14. Label Acid, Base, Conjugate Acid, & Conjugate Base for the following reactions:

	<u>Label</u>	<u>Conjugate acid-base Pairs</u>
a. $\text{H}_3\text{PO}_4(\text{aq}) + \text{H}_2\text{O}(\text{l}) \rightleftharpoons \text{H}_3\text{O}^+(\text{aq}) + \text{H}_2\text{PO}_4^-(\text{aq})$	Acid Base CA CB	$\text{H}_3\text{PO}_4 - \text{H}_2\text{PO}_4^-$ $\text{H}_2\text{O} - \text{H}_3\text{O}^+$
b. $\text{NH}_3(\text{aq}) + \text{H}_2\text{O}(\text{l}) \rightleftharpoons \text{NH}_4^+(\text{aq}) + \text{OH}^-(\text{aq})$	BASE ACID CA CB	$\text{NH}_3 - \text{NH}_4^+$ $\text{H}_2\text{O} - \text{OH}^-$
c. $\text{HCl}(\text{aq}) + \text{H}_2\text{O}(\text{l}) \rightleftharpoons \text{H}_3\text{O}^+(\text{aq}) + \text{Cl}^-(\text{aq})$	Acid Base CA CB	$\text{HCl} - \text{Cl}^-$ $\text{H}_2\text{O} - \text{H}_3\text{O}^+$
d. $\text{CH}_3\text{NH}_2(\text{aq}) + \text{H}_2\text{O}(\text{l}) \rightleftharpoons \text{CH}_3\text{NH}_3^+(\text{aq}) + \text{OH}^-(\text{aq})$	BASE Acid CA CB	$\text{CH}_3\text{NH}_2 - \text{CH}_3\text{NH}_3^+$ $\text{H}_2\text{O} - \text{OH}^-$