

## PROPERTIES OF ACIDS AND BASES

### ACIDS

- Juices/Fruits
- Tart, sour, sharp taste
- They are electrolytes
  - Conduct electricity
- React with Metals
- Common as aqueous and liquids



### BASES

- Cleaning products
- Bitter tasting
- Slippery to the touch
- Common as Solids



## THREE DIFFERENT DEFINITIONS OF ACIDS/BASES

### Arrhenius

- Acids make  $H^+$  ions in aqueous solutions
- Bases make  $OH^-$  ions in solution

### Bronsted-Lowry

- Acids donate protons
- Bases accept protons

### Lewis

- Acids accept electron pairs
- Bases donate electron pairs

$pH = -\log [H^+]$	$pOH = -\log [OH^-]$
$[H^+] = 10^{-pH}$	$[OH^-] = 10^{-pOH}$
$pH + pOH = 14$	
$[H^+][OH^-] = 1 \times 10^{-14}$	

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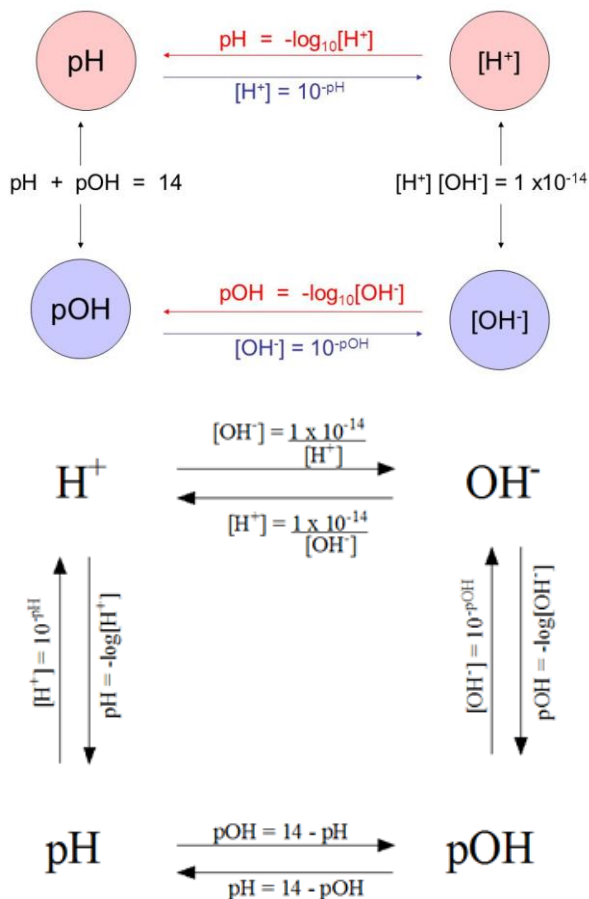
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