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| **Lesson Plan:** |

**Prior learning and thinking:** Students have completed the unit on chemical equilibrium, which are the basics for the acid/base section. They also know how to Keq to find the concentrations of reactants/products at equilibrium and work backwards to solve for Keq. They may or may not have learned how to use logs, which is needed for calculating pH and pOH. Students have experience with neutralization reactions and know the strong acid to strong base reaction only.

**Learning objectives**

- Write balanced equations representing the neutralization of acids by bases in solution

- Define Arrhenius acids and bases

**Big Ideas**

1) Not all acids and bases dissociate completely in water, the more they dissociate in water, the stronger they are

2) The stronger the acid/base, the more they "don't want"/"want" their proton

3) Acid or base alone is different when they're mixed in water. Water acting as a weak acid/base sets pH/pOH limit even when strong acid/base is added.

4) Safety and application of acid/base reactions in real life situations.

**PLOs**

**D1** identify acids and bases through experimentation

**D2** identify various models for representing acids and bases

**Material and equipment needed**

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| --- | --- | --- | --- | --- |
| Hover Cam | Notes | Created data | Kahoot it? | Downloaded videos |

**Assessment Plan:**

**Formative -** Inquiry questions discussed in class and worksheet handed in this class or next class

**Hook and Introduction**

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| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 10 min | * Motivational Mercredi |  |  |

**Development**

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| --- | --- | --- | --- |
| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 10 min | * Lab debrief | * Talk about last class' experience * Check with students how the lab went yesterday * Go over lab procedure and rationale for last class * Any information that they need? * Would they like 10-15min to put any finishing touches on the lab? | * Short lab-write up |
| 10-15 min | * Work on lab | * Students can hand in the work for the lab if they're done * If they're done, they can work on the worksheet due Friday |  |
| 15 min | * Notes on Acid naming and definitions | * Hovercam |  |
| 25 min | * Examples and work on worksheet 4-1 | * See below |  |

**Closure**

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| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 5 min | * Check in with the class | Make sure students hand in lab before they leave | **HWK**  1) Worksheet 4-1 next class - can use internet to do the research  2) Suggested problems from the board |

Naming:



