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| **Lesson Plan:** |

**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**

**E1** analyse the equilibrium that exists in water

**E2** perform calculations relating pH, pOH, [H3O+], and [OH-]

**E3** explain the significance of the Ka and Kb equilibrium expressions

**E4** perform calculations involving Ka and Kb

**Material and equipment needed**

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| Quiz | Marked work | pre-made groups | Review pkg |  |  |

**Assessment Plan:**

**Formative -**

**Hook and Introduction**

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| --- | --- | --- | --- |
| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 10:15 - 10:20 | * Quiz Setup | * Before and after bell: clear table, set up dividers, get calculators, set up formula sheets |  |

**Development**

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| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 10:20-10:50 | * Quiz part 1 |  |  |
| 11:00 - 11:30 | * Quiz part 2 | * Groups made | * Working with individual groups |

**Closure**

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| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 11:30-11:35 | * Clean up | Announcements: next class is the review  Next Tuesday = Unit test  Review package |  |