**CW3: Acids Bases: Arrhenius & Brönsted-Lowry Theories Worksheet**

1. How do the Arrhenius and Bronsted-Lowry definitions of an acid and a base differ? How are they similar?
2. What is an amphoteric species? Name one and write a balanced equation that shows why it’s amphoteric.
3. Give the formula for the conjugate base:
   1. HCl
   2. H2CO3:
   3. H2O:
4. Give the formula of the conjugate acid:
   1. O2-2
   2. SO42-
   3. H2O:
5. In each equation, label the acids, bases and conjugate pairs
   1. HClO4(aq) + H2SO4(aq) ⇋ ClO4-  + H2SO4+

* 1. NH3 + H3PO4 ⇋ NH4+ + H2PO4-

1. List the 7 strong acids. Why are they considered strong? What makes an acid weak? What are the strong bases?
2. List the properties of an acid. List the properties of a base.