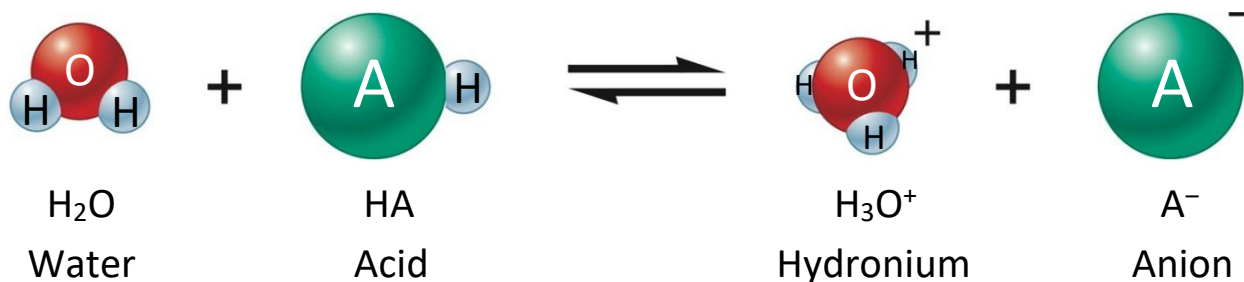


Strong Acids vs. Weak Acids

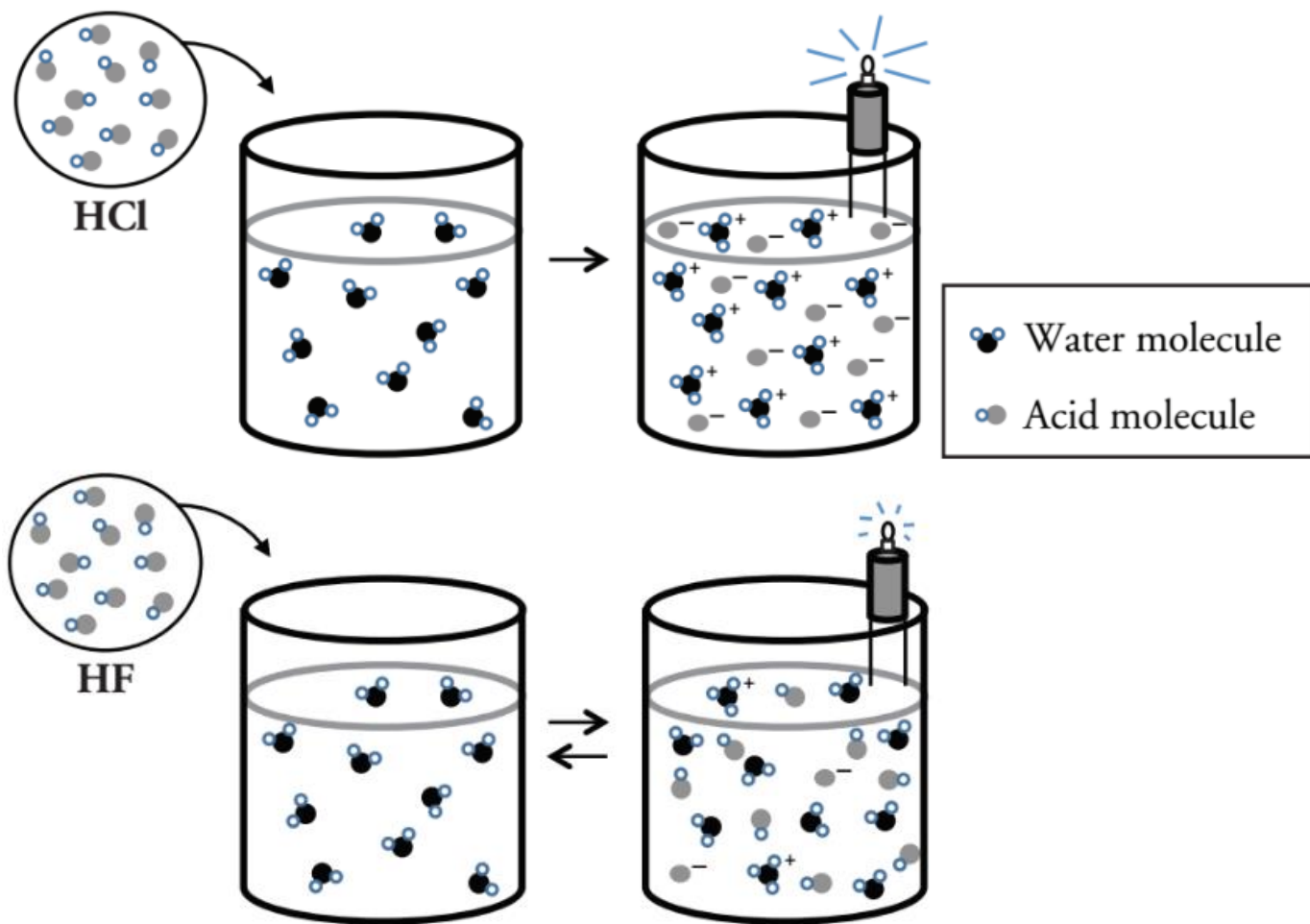
All acids donate H^+ ions. When an acid is placed into water as shown below, the acid gives a H^+ ion to a water molecule, creating the H_3O^+ (hydronium ion) and a negative ion (A^-).



This process by which an acid breaks apart and forms the H_3O^+ and A^- ions is called dissociation (also called ionization). Acids are classified by the extent to which they dissociate into H_3O^+ and A^- ions.

- Strong acids undergo complete dissociation, meaning 100% of the acid molecules break into ions.
- Weak acids undergo partial dissociation, meaning a small percentage the acid molecules break into ions.

Below are two acids: HCl and HF. Each acid is placed into water and the resulting solution is shown below.



1. Correctly identify each acid as either a strong acid or a weak acid. Explain your reasoning.
2. Correctly identify each acid as either a strong electrolyte or a weak electrolyte. Explain your reasoning.