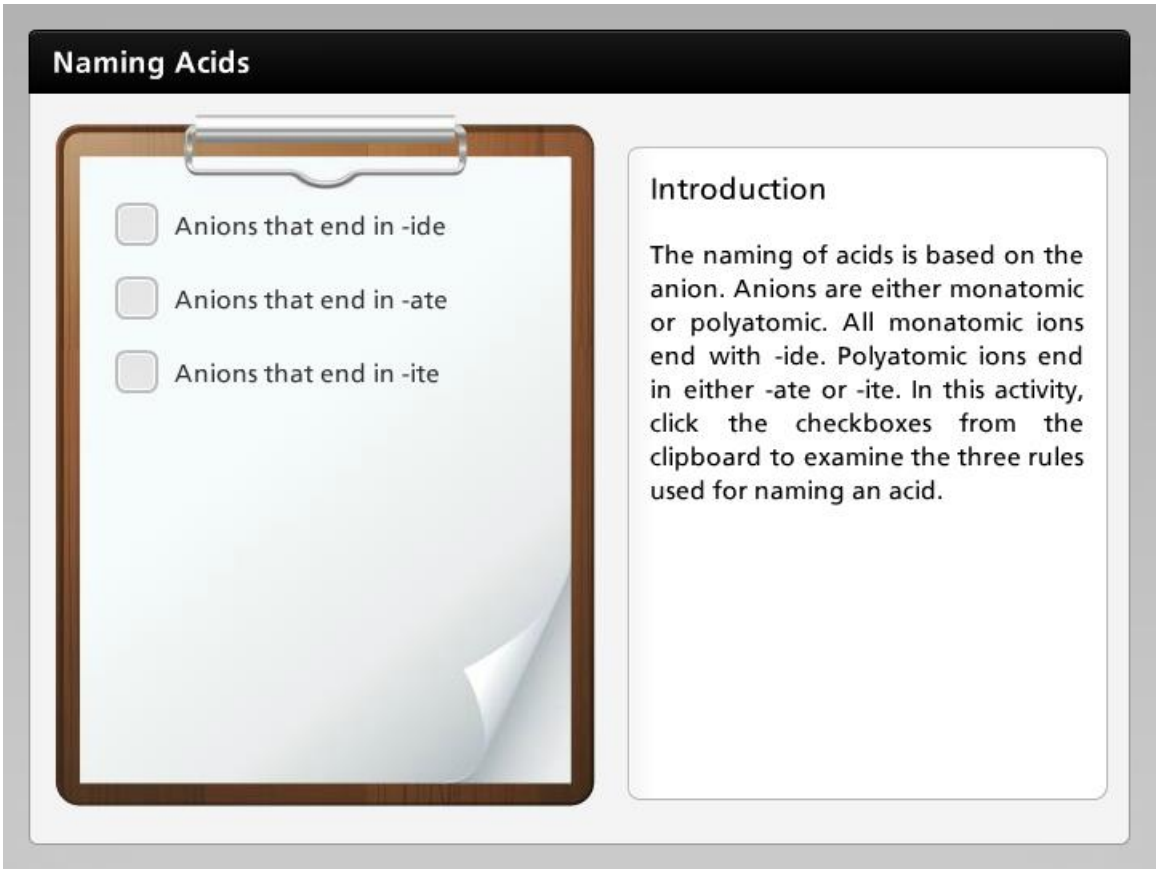
Module 11: Acid/Bases, Neutralization, and Redox Reactions

Topic 2 Content: Naming Acids Notes

Introduction



The naming of acids is based on the anion. Anions are either monatomic or polyatomic. All monatomic ions end with –ide. Polyatomic ions end in either –ate or –ite. In this activity, click the checkboxes from the clipboard to examine the three rules used for naming an acid.

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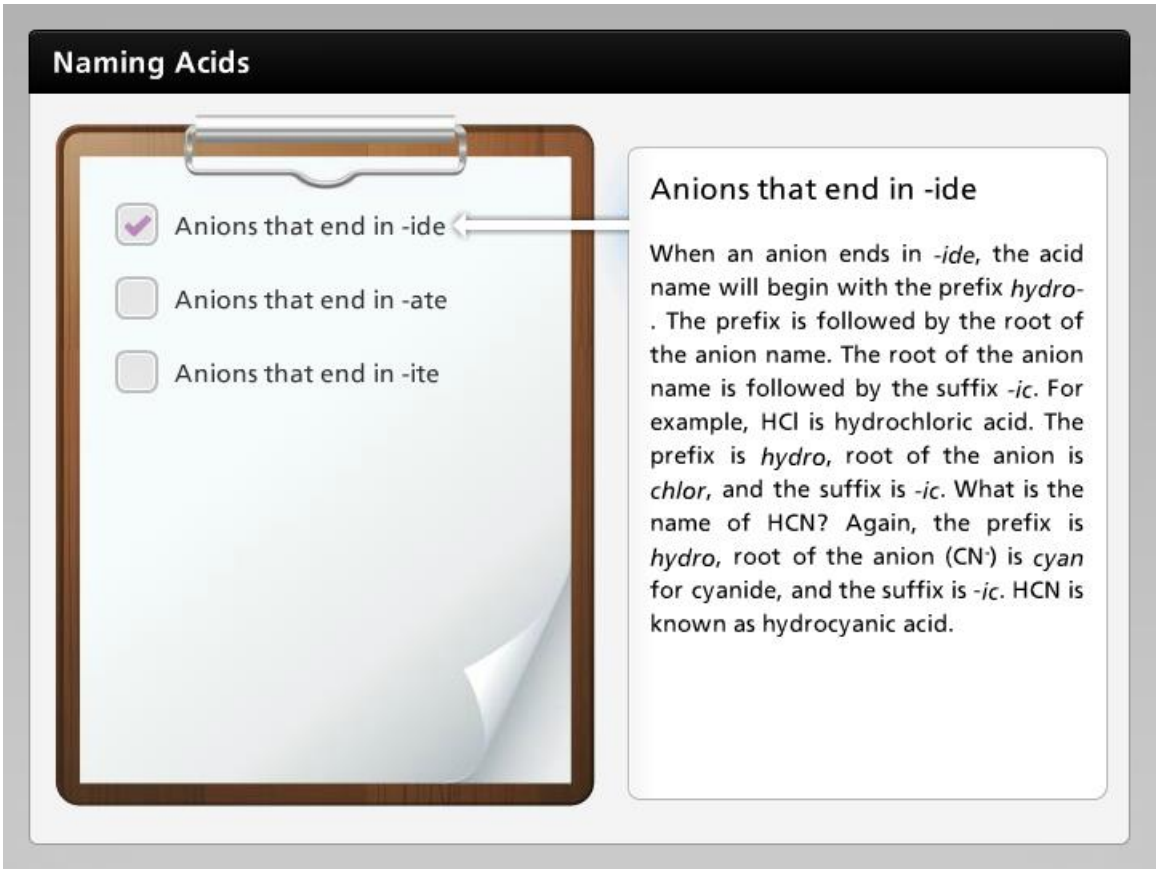
Anions that end in -ide



When an anion ends in *-ide*, the acid name will begin with the prefix *hydro-*. The prefix is followed by the root of the anion name. The root of the anion name is followed by the suffix *-ic*. For example, HCl is hydrochloric acid. The prefix is *hydro*, root of the anion is *chlor*, and the suffix is *-ic*. What is the name of HCN? Again, the prefix is *hydro*, root of the anion (CN^-) is *cyan* for cyanide, and the suffix is *-ic*. HCN is known as hydrocyanic acid.

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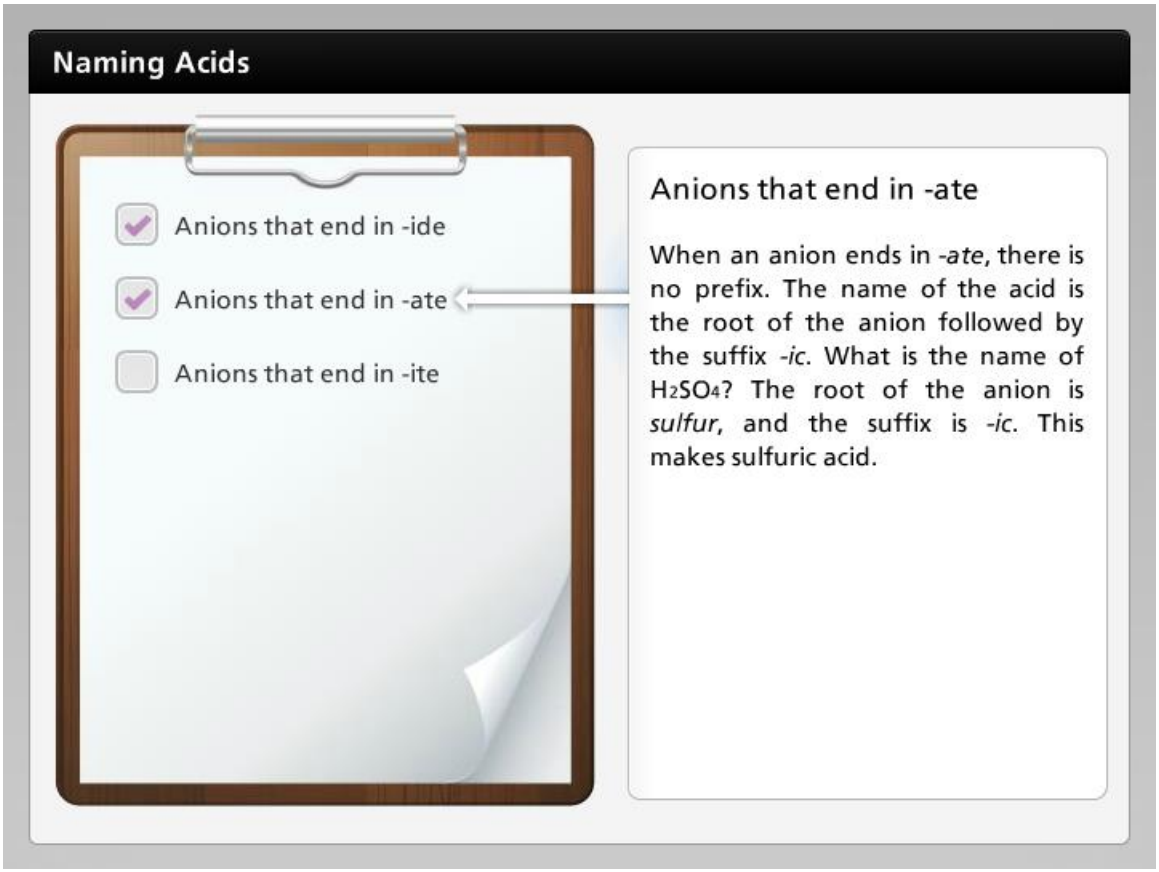
Anions that end in -ate



When an anion ends in *-ate*, there is no prefix. The name of the acid is the root of the anion followed by the suffix *-ic*. What is the name of H_2SO_4? The root of the anion is *sulfur*, and the suffix is *-ic*. This makes sulfuric acid.

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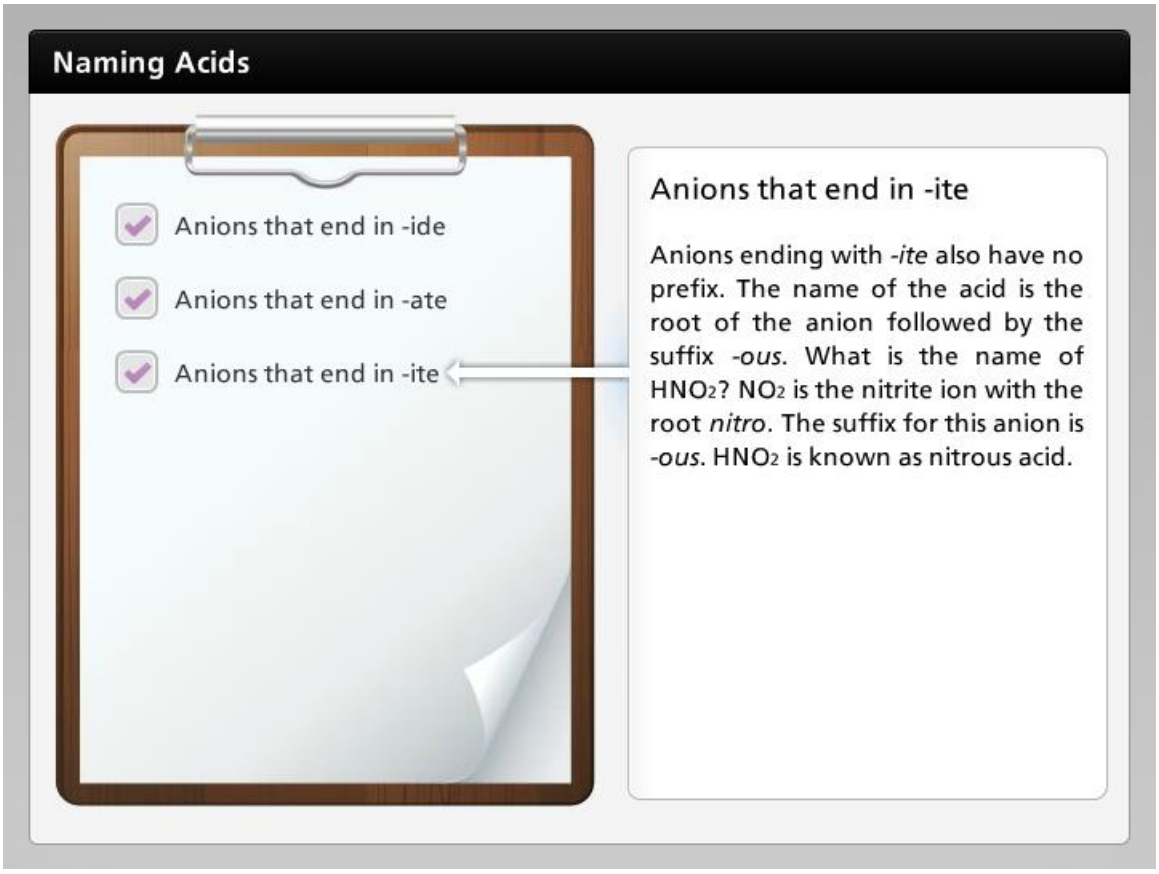
Anions that end in -ite



Anions ending with *-ite* also have no prefix. The name of the acid is the root of the anion followed by the suffix *-ous*. What is the name of HNO_2? NO_2 is the nitrite ion with the root *nitro*. The suffix for this anion is *-ous*. HNO_2 is known as nitrous acid.