

**Objective:** Know the properties/characteristics of acids and bases

### Solutions can be acids, bases, or neutral.

Substances that dissolve in \_\_\_\_\_ can become acids or bases. In order to make an acid or a base a chemical \_\_\_\_\_ must break apart. When it does, it breaks apart into \_\_\_\_\_. An ion is a \_\_\_\_\_ atom. Atoms become charged by losing or gaining an \_\_\_\_\_. What is the difference between an acid and a base?

An acid is able to \_\_\_\_\_ a hydrogen ion to another substance.

A base is able to \_\_\_\_\_ a hydrogen ion from another substance.

\* Note: in this case a hydrogen ion is just a \_\_\_\_\_.

### Acids and bases have certain characteristics

There are many ways to determine if a substance is an acid or a base. Here are a few of characteristics that we will use to identify acids and bases.

Acids will...

- Have a \_\_\_\_\_ taste. (SAFETY NOTE: don't taste acids!)
- React with \_\_\_\_\_ (ex: limestone rocks)
- React with most \_\_\_\_\_
- Turn litmus paper \_\_\_\_\_.
- Have \_\_\_\_\_ ( $H^+$ )

Bases will...

- Have a \_\_\_\_\_ taste (SAFETY: again, don't actually taste them!)
- Feel \_\_\_\_\_ to the touch (SAFETY: don't touch them!)
- Turn litmus paper \_\_\_\_\_.
- Have \_\_\_\_\_ ( $OH^-$ )

You can use these to test different substances to determine if they are an acid or a base. Extreme caution must be used when using touch or taste. **Never touch or taste a chemical unless you have permission to do so!**