

ACIDS AND BASES

Most every liquid has acidic or basic traits. Acids and bases are two important compounds.

Acids

An **Acid** is a type of sour substance. Examples of acids are lemon juice and vinegar.

Remember: DO NOT TASTE SUBSTANCES during science experiments.

Some Characteristics of ACIDS Important to Know:

- ➔ Acids taste sour



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

When placed in water, acids release hydrogen ions into the water. Remember ions are negatively or positively charged atoms. When an acidic substance dissolves in water, hydrogen atoms break away from the acid molecules. This process forms hydrogen ions. The more hydrogen ions formed, the stronger the acid.

*Lesson Checkpoint: What is an ACID?
Give one example of an acid.*

Bases

A **base** is a type of bitter substance. A base dissolved in water is called a basic solution. Examples of a base substance are soap and baking soda. A base releases hydroxide ions in water.

Some Characteristics of BASES Important to Know:

- ➔ Bases taste bitter
- ➔ Bases often have a slippery feel
- ➔ Strong bases are extremely dangerous and can burn your skin!!!
- ➔ Bases are also called alkalis

*Lesson Checkpoint: What is an BASE?
Give one example of a base.*

Identification of Acids and Bases

Sci
is.

ce

A st
A st

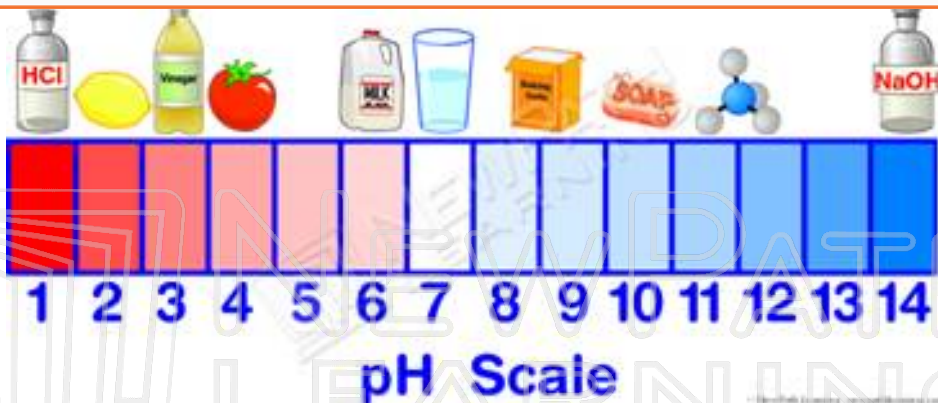
A n
base

The



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download
the printable version of this worksheet



- The pH scale is numbered from 0 → 14.
- The lower the number = the more hydrogen ions = the more **acidic** the substance is
- The strength of an acid increases with distance from pH ranking of 7. ← ← ← ←
- Any substance listed **below pH 7 is acidic.**
- Example of an acid from the pH chart above is a tomato = pH of 4
- The higher the number = the less hydrogen ions = the more **basic** the substance is



PREVIEW

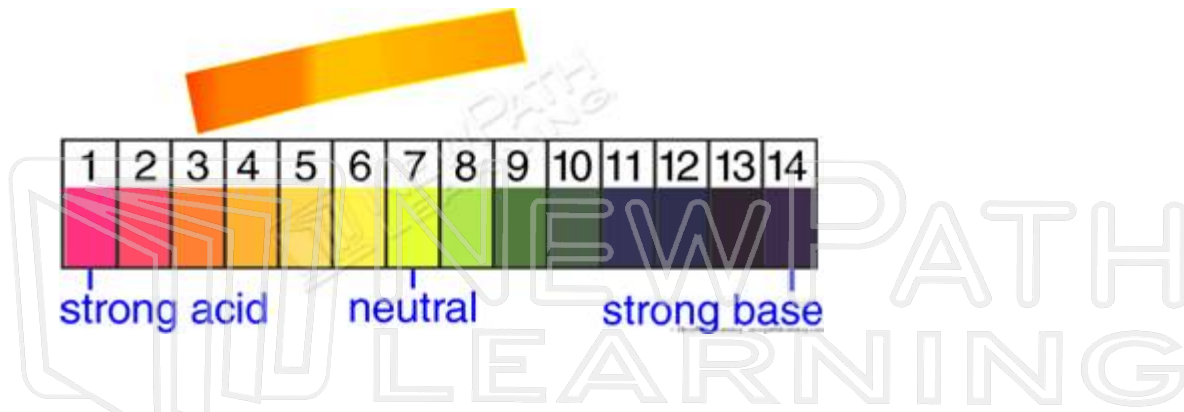
Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

Indicator Paper.

Scientists use a variety of pH indicators to determine which substances are bases and which are acids. These pH indicators have very special chemicals that will change color if you change the pH by adding an acid or base to it.

There is special paper, called universal indicator paper, which acids and bases react with. The reactions are visible in the form of different colors on the paper.

The universal paper comes along with a pH scale to help determine if the substance you were testing is an acid, a base, or neutral.



A strong acid will turn the universal indicator paper **red**. A strong base will turn universal indicator paper **purple**.

Scientists also use a similar type of indicator paper called **litmus paper**, which is special paper used to detect the presence of an acid or a base.

Pin
Litm
Les



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

rsal

