

Introduction to Acids & Bases: A WebQuest

1. http://www.visionlearning.com/library/module_viewer.php?c3=&mid=58&l=

The word acid comes from the Latin word _____ meaning _____.

Boyle stated that acids taste _____, are corrosive to _____, change the color of litmus to _____, and become less acidic when mixed with _____.

He described bases as feeling _____, changing litmus to the color _____, and becoming less basic when mixed with an _____.

About 200 years later, Arrhenius proposed that water can dissolve many compounds by separating them into their individual _____. He suggested that acids contain _____ and can dissolve in water to release _____. Bases dissolve in water to release _____ ions into the solution.

2. http://www.chem4kids.com/files/react_acidbase.html

Every liquid has _____ & _____ traits. One exception might be _____. It is just water. However, the _____ ions and _____ ions cancel each other out.

3. <http://chemistry.about.com/od/acidsbases/a/acidbaseformula.htm>

Give the formula for the following acids:

Hydrofluoric Acid-

Hydrochloric Acid-

Hydrosulfuric Acid-

Nitric Acid-

Sulfuric Acid-

Acetic Acid-

Boric Acid-

Give the formula for the following bases:

Sodium Hydroxide-

Potassium Hydroxide-

Calcium Hydroxide-

Iron (II) Hydroxide-

4. <http://chemistry.about.com/od/acidsbases/a/acidsbaseterms.htm>

Scroll down to Properties of Acids.

Complete the following sentences for **Acids**

- Tastes _____
- Changes litmus from blue to _____.
- Solutions are _____ (conduct electricity).
- React with bases to form _____ + _____.

Neutralization

- Create _____ gas when reacting with an active metal.
- Five (5) Common acids (scroll down):

Properties of **Bases**

- Tastes _____.
- Feels _____.
- Don't change the color of _____.
- Solutions are _____ (conduct electricity).
- React with acids to form _____ + _____.

Neutralization

- Four (4) Common Bases:

5. <http://chemistry.about.com/od/acidsbases/a/phtable.htm> and http://www.visionlearning.com/library/module_viewer.php?c3=&mid=58&l
Scroll down on the site above until you get to the pH scale

Using the sites above, answer the questions below:

- A. pH range of acids _____
- B. pH of a neutral substance _____
- C. pH of a basic (alkaline) substance _____

Use information from the sites above and list the following substances according to pH. The lowest pH should be listed first and the highest base listed last. HCl and NaOH are given as examples.

Substances:

Correct Acid-Base pH list

Pure water

1 HCl

Apples

Ammonia

Lime (Calcium Hydroxide)

Milk

HCl

Vinegar

Baking Soda

NaOH

Human Blood

Lemon juice

Battery Acid

Milk of Magnesia

Rain water

Egg whites

Drano

14 NaOH

6. <http://chemistry.about.com/library/weekly/blacidquiz.htm>

Take the quiz.

Place score here _____.

7. <http://chemistry.about.com/library/weekly/bl060603a.htm>

Take the quiz.

Place score here _____.