

# ACIDS AND BASES WEBQUEST

## ❖ Part 1: Acids and Bases Introduction:

Go to the [http://www.chem4kids.com/files/react\\_acidbase.html](http://www.chem4kids.com/files/react_acidbase.html) and read about acids and bases.

1. Define an acid?

2. Define a base?

3. How do scientists measure the strength of acids and bases? Describe this scale.

4. Describe the physical properties such as taste and feel of acids and bases (and then watch the video and answer the questions provided in this link.

<https://courses.lumenlearning.com/cheminter/chapter/properties-of-acids-and-bases/>

Properties of Acids	Neutral	Properties of Bases

- Next, we will take a look at some examples of acids and bases.
- Go to the [VisionLearning Website](http://www.visionlearning.com/library/module_viewer.php?c3=&mid=58&l) and learn more about the properties of acids and bases.

5. Give 4 examples of acids and 4 examples of bases from the pH Scale on the site.

Examples of Acids	Examples of Bases

## ❖ Part 2: Acid and Base Notes

[http://www.visionlearning.com/library/module\\_viewer.php?c3=&mid=58&l](http://www.visionlearning.com/library/module_viewer.php?c3=&mid=58&l)

1. The word acid comes from the Latin word \_\_\_\_\_ meaning \_\_\_\_\_.
2. Boyle stated that acids taste \_\_\_\_\_, are corrosive to \_\_\_\_\_, change the color of litmus to \_\_\_\_\_, and become less acidic when mixed with \_\_\_\_\_.
3. He described bases as feeling \_\_\_\_\_, changing litmus to the color \_\_\_\_\_, and becoming less basic when mixed with an \_\_\_\_\_.
4. About 200 years later, Arrhenius proposed that water can dissolve many compounds by separating them into their individual \_\_\_\_\_.

5. He suggested that acids contain \_\_\_\_\_ and can dissolve in water to release \_\_\_\_\_.
6. Bases dissolve in water to release \_\_\_\_\_ ions into the solution.

[http://www.chem4kids.com/files/react\\_acidbase.html](http://www.chem4kids.com/files/react_acidbase.html)

1. Every liquid has \_\_\_\_\_ & \_\_\_\_\_ traits. \_\_\_\_\_ can be both an acid and a base, depending on how you look at it.

a. It can be considered an acid in some **reactions** and a base in others.

Water can even react with itself to form acids and bases.

2. Most of the time, the positive and negative \_\_\_\_\_ in distilled water are in equal amounts and cancel each other out.
3. Most water you drink from the \_\_\_\_\_ has other ions in it.
4. Those special ions in solution make something acidic or basic.
5. In your body there are small **compounds** called \_\_\_\_\_
6. The name tells you those are acids. In fruits there is something called \_\_\_\_\_.
7. A chemist named \_\_\_\_\_ came up with a way to define acids and bases in 1887.
8. He saw that when you put molecules into water, sometimes they break down and release an \_\_\_\_\_.
9. At other times, you find the release of an \_\_\_\_\_
10. When a hydrogen ion is released, the solution becomes \_\_\_\_\_.
- When a hydroxide ion is released, the solution becomes \_\_\_\_\_.

## ❖ Part 3: Understanding the pH scale

- SITE #1

[https://phet.colorado.edu/sims/html/ph-scale-basics/latest/ph-scale-basics\\_en.html](https://phet.colorado.edu/sims/html/ph-scale-basics/latest/ph-scale-basics_en.html)

1. Using the simulation, report the pH reading and classify into acid or base

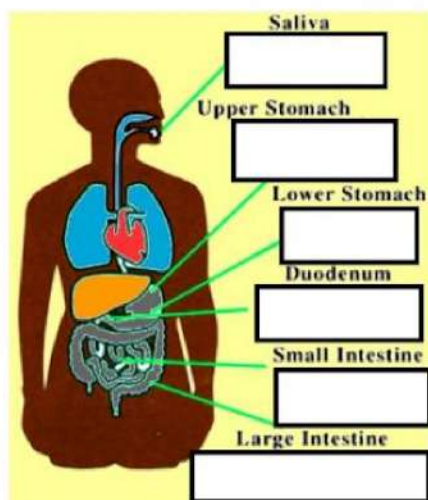
Substance	pH	Acid or Base	Substance	pH	Acid or Base
Drain Cleaner			Orange Juice		
Blood			Battery Acid		
Spit			Soda Pop (Dr Pepper)		
Hand Soap			Vomit		
Chicken Soup			Coffee		
Milk					

- SITE#2 [www.harcourtschool.com/activity/acids](http://www.harcourtschool.com/activity/acids)

2. By clicking on each one of the test tubes complete the chart below

Test Tube	Litmus paper color	pH	Acid or base?	Substance
#1				
#2				
#3				
#4				
#5				

- SITE #3 <https://www.quora.com/What-are-the-pH-of-different-organs> Track the pH as you travel through the digestive system.



SALIVA = \_\_\_\_\_

UPPER STOMACH = \_\_\_\_\_

LOWER STOMACH = \_\_\_\_\_

DUODENUM = \_\_\_\_\_

SMALL INTESTINE = \_\_\_\_\_

LARGE INTESTINE = \_\_\_\_\_

## ❖ Part 4: Acid Base Review

- Review this website make any adjustments in your answers above

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

## ❖ Part 5: Assessments

- Use the links in Google Classroom to complete the assessments

<https://quizizz.com/admin/quiz/5cb7e6c66ac815001aa6b813>