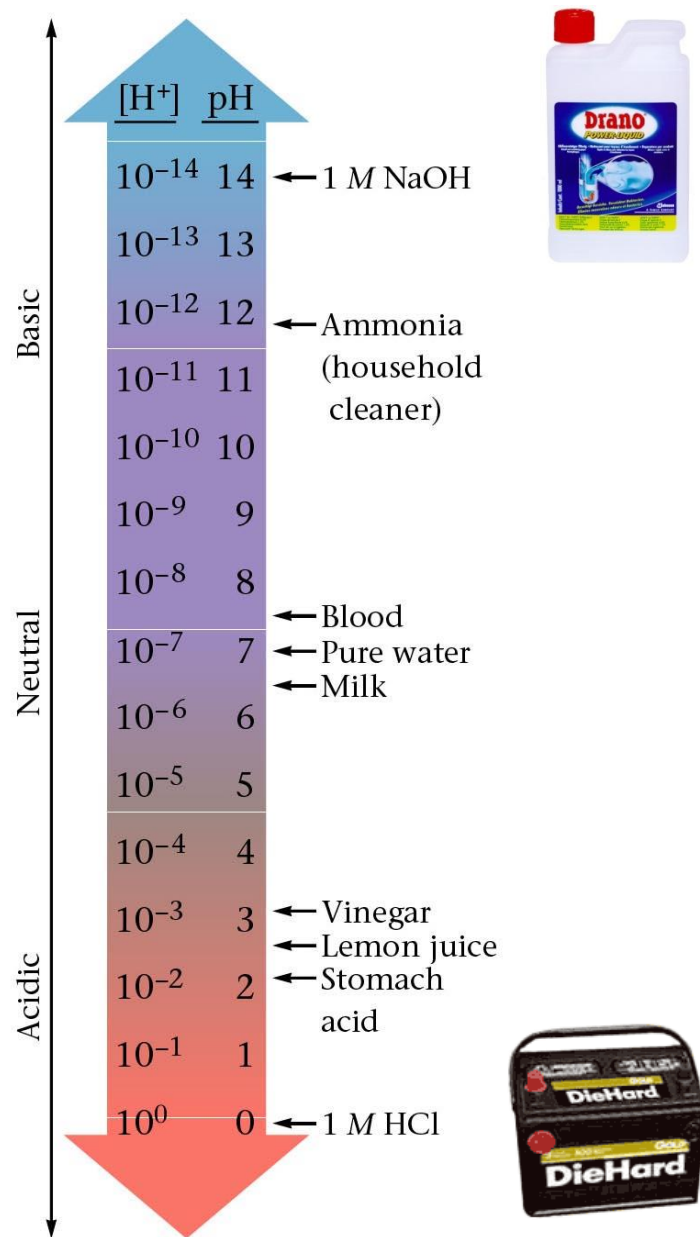
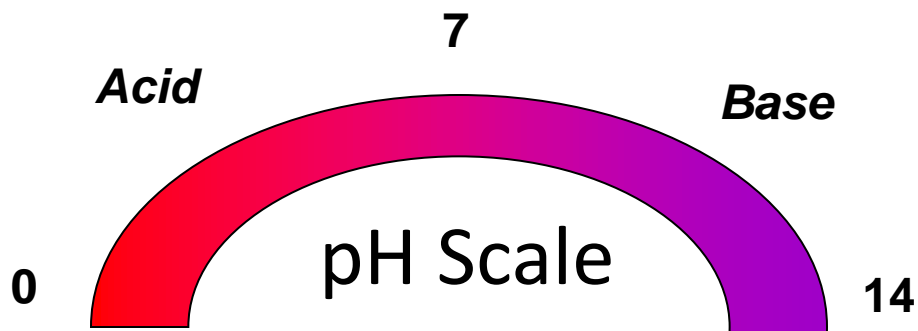
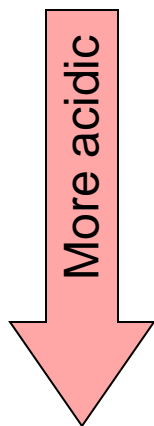
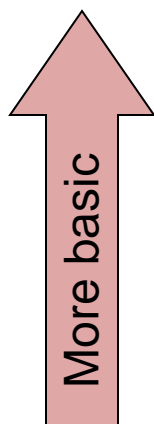


pH Scale

- We use this scale to measure the strength of an acid or base.
- pH is defined as the $-\log[\text{H}^+]$
- pH can use the concentration of hydronium ions or hydrogen ions.



pH of Common Substance



- NaOH, 0.1 M
- Household bleach
- Household ammonia
- Lime water
- Milk of magnesia
- Borax
- Baking soda
- Egg white, seawater
- Human blood, tears
- Milk
- Saliva
- Rain
- Black coffee
- Banana
- Tomatoes
- Wine
- Cola, vinegar
- Lemon juice
- Gastric juice

pH	[H ¹⁺]	[OH ¹⁻]	pOH
14	1 x 10 ⁻¹⁴	1 x 10 ⁻⁰	0
13	1 x 10 ⁻¹³	1 x 10 ⁻¹	1
12	1 x 10 ⁻¹²	1 x 10 ⁻²	2
11	1 x 10 ⁻¹¹	1 x 10 ⁻³	3
10	1 x 10 ⁻¹⁰	1 x 10 ⁻⁴	4
9	1 x 10 ⁻⁹	1 x 10 ⁻⁵	5
8	1 x 10 ⁻⁸	1 x 10 ⁻⁶	6
7	1 x 10 ⁻⁷	1 x 10 ⁻⁷	7
6	1 x 10 ⁻⁶	1 x 10 ⁻⁸	8
5	1 x 10 ⁻⁵	1 x 10 ⁻⁹	9
4	1 x 10 ⁻⁴	1 x 10 ⁻¹⁰	10
3	1 x 10 ⁻³	1 x 10 ⁻¹¹	11
2	1 x 10 ⁻²	1 x 10 ⁻¹²	12
1	1 x 10 ⁻¹	1 x 10 ⁻¹³	13
0	1 x 10 ⁰	1 x 10 ⁻¹⁴	14



pHyrion

INSTA-CHEK 0-13

For SURFACE pH

- Moisten surface with water.
- Mark with Pencil. • Wait 15 seconds.

Compare color with chart.

INSTA-CHEK SURFACE pH PENCIL

For **SPOT TESTS** (or very small amounts of solution)
(Use a clean inert surface, e.g. porcelain, glass, PE coated Freezer Wrap)

Moisten a small spot with test solution. Draw a line or 'X' through the wet spot. Compare color with chart immediately.

OR

Draw a line on the dry surface, long enough for several tests. For each test, wet a fresh spot on the line with test solution. Compare color with chart immediately.



pH PAPER CHART ABOVE

pH	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Colour	RED	ORANGE	ORANGE	YELLOW	YELLOW	GREEN	GREEN	TEAL	BLUE	BLUE	PURPLE-VIOLET	PURPLE-VIOLET	PURPLE-VIOLET	PURPLE-VIOLET
strength	Strong	ACIDS			Weak	Neutral	Weak		ALKALIS				Strong	

**BROMOTHYMOL BLUE INDICATOR
SOLUTION COLOR CHART ABOVE**