



ACIDS

and

BASES

ch 7

ACIDS

- Sour
- Corrosive with metal
- $H(+)$ ion in solution
- Examples:

Lemon juice-citric

Spoiled milk-lactic

Vinegar-acetic



BASES

- Bitter
- Slippery
- OH (-) ion in solution

Changes Acids traits

- Examples:

Soda water

Baking soda

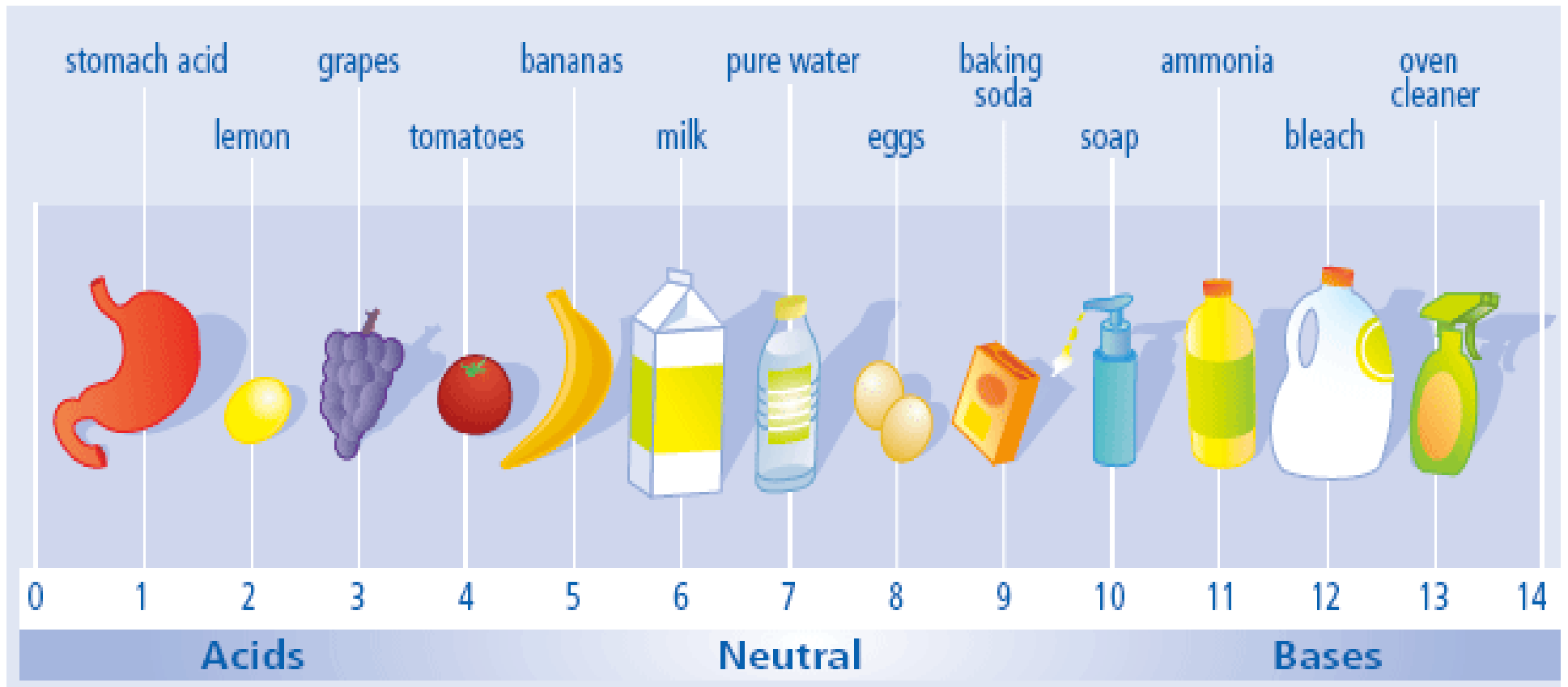
Shampoo



pH scale

- Measures the amount of hydrogen ions in solution.
- A low pH indicates a high number of hydrogen ions in solution.





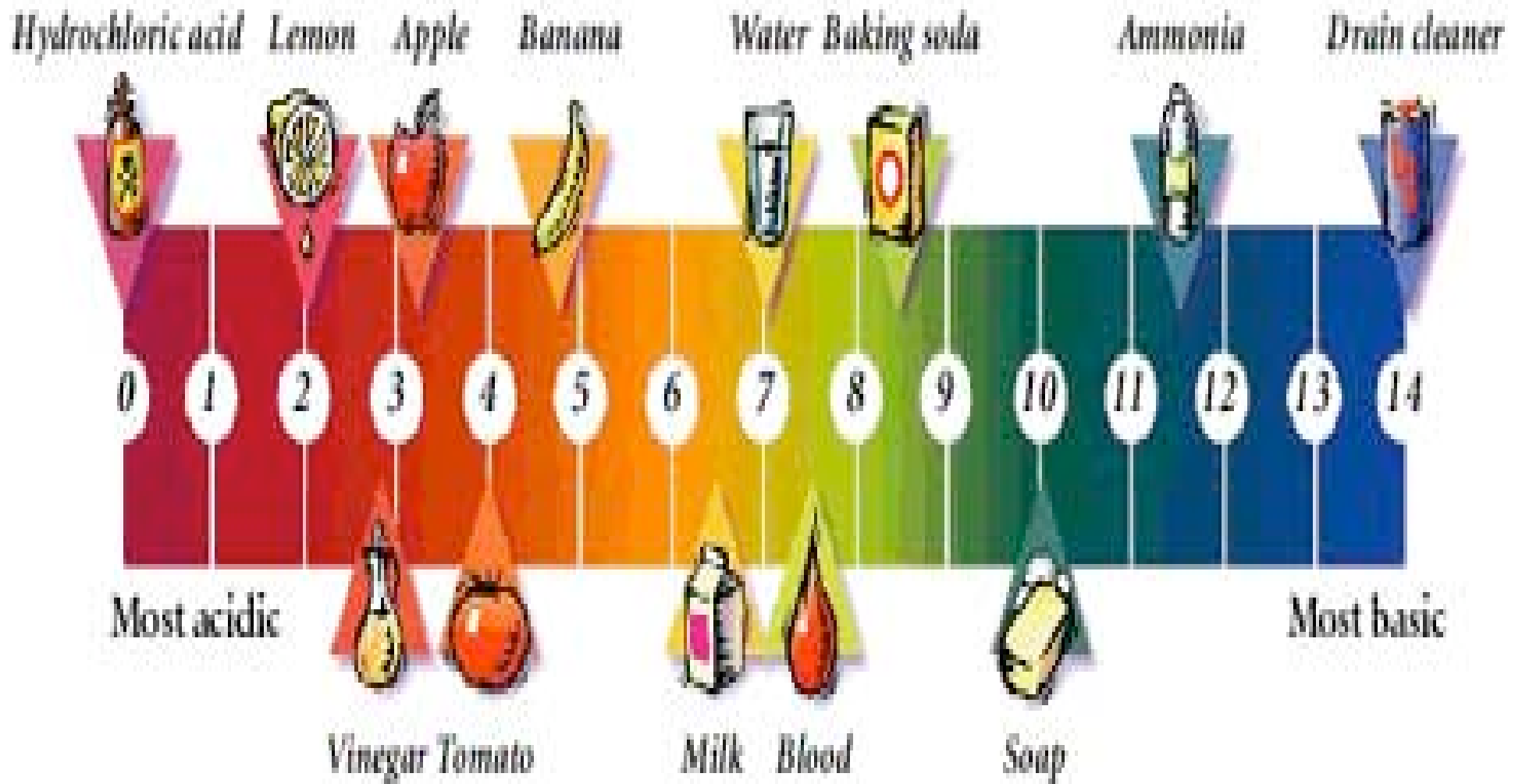
0

most acidic

14

most
basic/alkaline

The pH Scale



Neutralization

- A reaction between an acid and a base. The result of this will be water and salt.
- Bring reading closer to 7.

In solution:

- H separate from acids
- OH separate from bases
- Together forms H₂O



Representative pH values

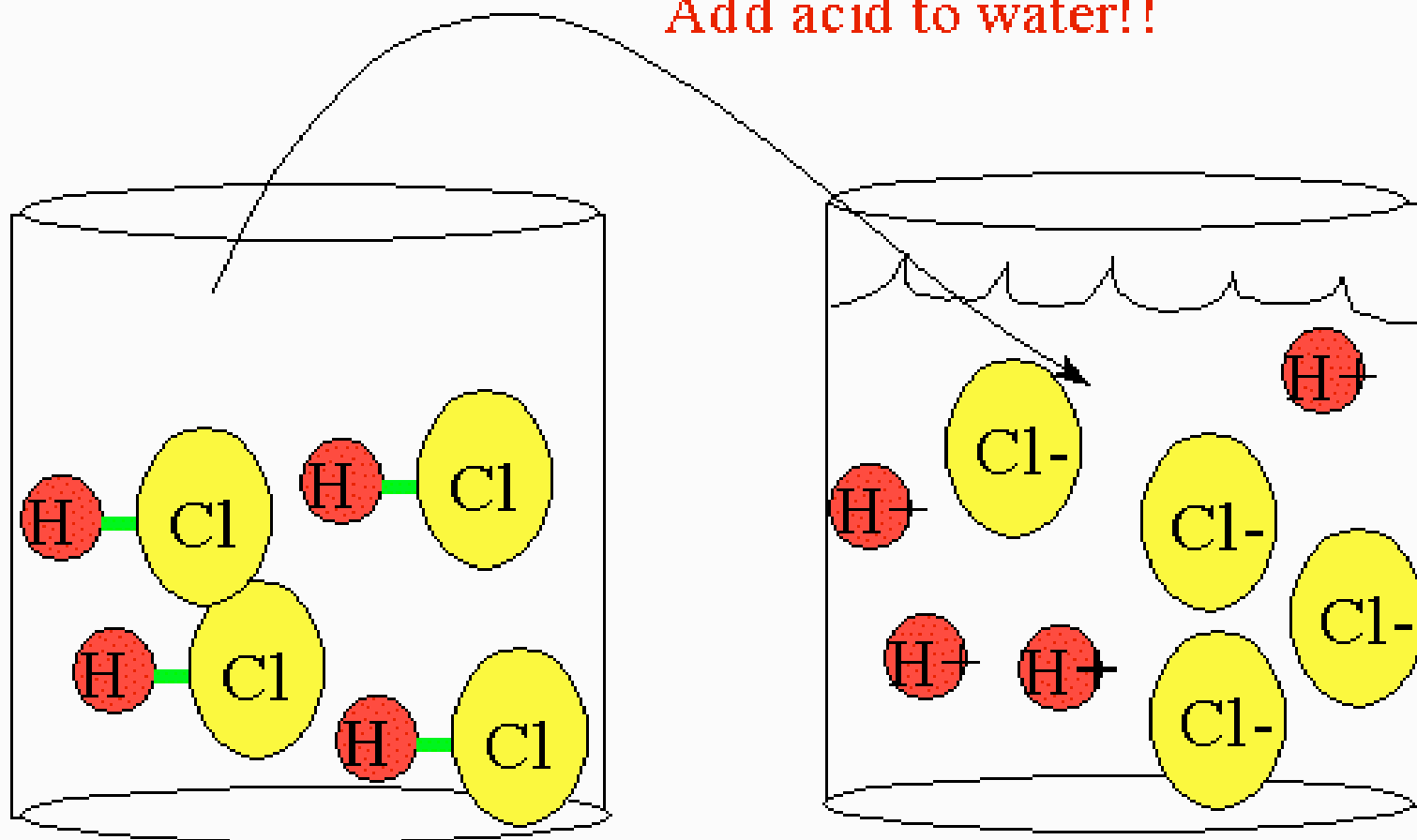
Substance	pH
Battery acid	0.5
Carbolic acid	1.0 - 2.0
Lemon juice	2.0
Coke	2.5
Vinegar	2.8
Orange or apple juice	3.5
Beer	4.5
Acid rain	4.5 - 6.0
Coffee	5.0
Tea or healthy skin	5.5
Milk	6.5
Pure water	7.0
Healthy human saliva	6.5 - 7.4
Blood	7.35 - 7.45
Sea water	8.0
Hand soap	9.0 - 10.0
Household ammonia	11.0
Bleach	12.0
Household lye	13.0

Courtesy of Wikipedia



Strong acids completely dissociate in water.

Add acid to water!!



HCl

H⁺ and Cl⁻

100% ionization

Be Careful What You Mix.

