

Acids & Bases – “Soo basic!”

Name _____

Date _____

We just learned about acids and bases so let's practice our knowledge! With this practice, you will go from basic to expert!

1. Fill in the blank. Words may be used more than once!

- A **base** is a substance that releases a hydroxide ion upon **dissociation** in water.
- Blue litmus paper turn red when it comes in contact with an **acid**.
- Dissociation** occurs when a molecule is separated into two or more smaller molecules.
- A substance is considered **neutral** when it has a pH of 7.
- The **conjugate base** of an acid is formed when the acid donates a proton.

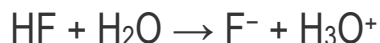
Acid
Base
Dissociation
Neutral
Acidic
Basic
Conjugate Acid
Conjugate Base

2. Short-answer:

- What are strong and weak acids? Give one example of each?

A strong acid is one, which is almost completely dissociated in solution. Examples: Dilute nitric acid, dilute sulphuric acid and dilute hydrochloric acid. A weak acid is one, which is only partially ionized in solution (degree of dissociation is >30%). Examples: Acetic acid, carbonic acid and sulphurous acid.

- Label the acids, bases, and their conjugates:

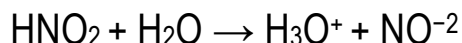


Acid: HF

Base: H₂O

Conjugate Acid: H₃O⁺

Conjugate Base: F⁻

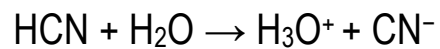


Acid: HNO₂

Base: H₂O

Conjugate Acid: H₃O⁺

Conjugate Base: NO₂⁻



Acid: HCN

Base: H₂O

Conjugate Acid: H₃O⁺

Conjugate Base: CN⁻

c. What is the pH scale used for?

It is a scale measuring from 1 to 14. The pH number determines if the substance is acidic, neutral, or basic.

3. On a separate sheet of paper, draw a picture of what dissociation looks like using your artistic creativity!