

Acids and Bases: The Voyage of the Proton

Name KAY Per _____

<https://www.learner.org/series/chemistry-challenges-and-solutions/acids-and-bases-the-voyage-of-the-proton/>

While Watching the Video

1. What is a hydronium ion? Is it a proton donor or proton acceptor?

H_3O^+ | proton donor (water w/ an extra H^+)

2. What is a hydroxide ion? Is it a proton donor or proton acceptor?

OH^- | proton acceptor (water w/out an H^+)

3. What is dissociation?

molecule breaking up into ions

4. How can you make a neutral solution?

Combine an acid and a base (produces salt water)

5. What is the definition of a strong acid? What is the definition of a weak acid? Name an example of each.

dissociate completely | only dissociate a little (partially) | strong: HCl (hydrochloric acid)
weak: vinegar (acetic acid)

6. What is acid rain?

secondary pollutant formed from release of fossil fuels

After Watching the Video

7. What is an acid?

substance that ~~gets~~ ^{donates} a proton, low pH (less than 7)

8. What is a base?

substance that gains a proton, high pH (more than 7)

9. What does the pH scale represent?

0-14 shows how acidic or basic

acid	7	base
0	neutral	14

10. What is a buffer? How can a buffer be made?

a solution that resists changes in pH | need a weak acid solution

11. Provide some examples of the roles acids and bases play in everyday life.

baking, natural environment (acid rain), our body!