

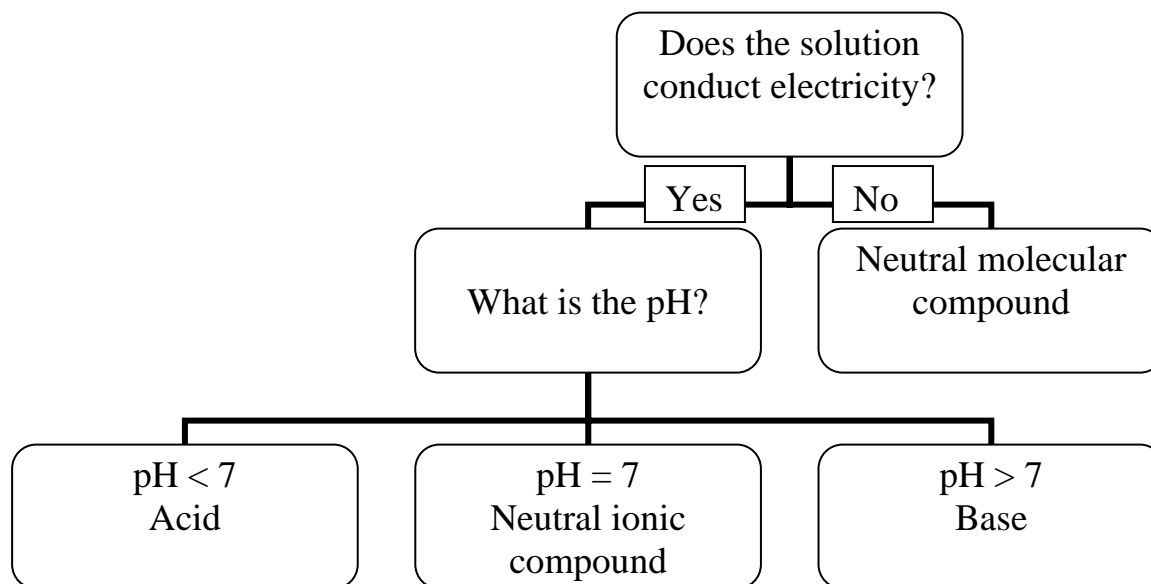
Identifying Acids and Bases Answer Key

1. A (a) Produces a gas when a drop is placed on a piece of magnesium metal
 N (b) Neither red litmus paper nor blue litmus paper change color
 B (c) Produces $\text{OH}^-(\text{aq})$ ions in solution
 A (d) Has a pH of 5
 B (e) Feels slippery
 B (f) Tastes bitter
 A (g) Changes blue litmus paper to red.
 N (h) Has a pH of 7
 A (i) Tastes sour
 B (j) Has a pH of 9
 A (k) Produces $\text{H}^+(\text{aq})$ ions in solution

2. All of the statements except (c) and (k) are empirical.

3. Observations (e), (f), and (i) would be unsafe to make in a laboratory.

4.



5. Solution A is an acid. It should demonstrate reactivity with magnesium.
 Solution B is a base. It should exhibit high conductivity.
 Solution C is a base. It should have a pH higher than 7.
 Solution D is an acid. It should have a pH lower than 7.
 Solution E is an acid. It should turn blue litmus paper red.