

Student directions *pH scale* activity 1: Introduction to pH

<http://phet.colorado.edu>

Directions: Use specific examples to demonstrate each of the following learning goals.

1. Determine if a solution is acidic or basic using
 - a. pH
 - b. H_3O^+/OH^- ratio (molecular size representation of just the ions in the water equilibrium)
 - c. Hydronium/Hydroxide concentration
2. Relate liquid color to pH.
3. Predict if dilution and volume will increase, decrease or not change the pH
4. Organize a list of liquids in terms of acid or base strength in relative order with supporting evidence.
5. Write the water equilibrium expression. Describe how the water equilibrium varies with pH.

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