

# Activity: Testing Acids & Bases

## Part 1: Make a hypothesis

At the front of the room are 8 different solutions: *vinegar, milk of magnesia, lemonade, dish soap, milk, window cleaner, cranberry juice, baking soda, and water*. Make a list hypothesizing the order of these solutions from most acidic (1) to most basic (9).

Most acidic



- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_
- 8) \_\_\_\_\_
- 9) \_\_\_\_\_



Most basic






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## Part 2: Test your hypothesis!

Now that you have your predictions, we'll be testing the pH of each solution to determine how acidic or basic it is. Once you're given your two solutions write them down under Solution Name in the table below.

Bring your cups to the front of the room and take a small amount of each of these two solutions as well as 2 pH strips.

Back at your station, test the pH of each solution by submerging the end of a pH strip into each solution. See what color the strip turns and match it to the color and pH below. Write this number down next to your solutions above.

|   |   |   |  |   |
|---|---|---|--|---|
| <b>Very Strongly Acidic</b>   | <b>Strongly Acidic</b>  | <b>Weakly Acidic</b>  | <b>Weakly Basic</b>  | <b>Strongly Basic</b>   |
| pH = 2.0  | pH = 4.0  | pH = 6.0  | pH = 8.0   | pH = 10.0   |
|  |  |  |  |  |

| Solution Name | pH Measured |
|---------------|-------------|
| 1)            |             |
| 2)            |             |

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## Part 3: Make a pH range!

We'll do this part as a whole group! 😊