ACID RAIN vs. PAINT

Introduction
The intent for this project was to see in the future, what would happen to all of the painted surfaces over time, when acid rain is brought into the picture.

Research Problem
Our focus was to see what would happen to painted surfaces over time with acid rain.

Materials
- 3 Spray bottles, 32 oz.
- Blue acrylic paint, 8 fl oz
- 3 storage bottles with screw on lids, 8 oz
- White distilled vinegar, 32 fl oz
- 1 gallon distilled water
- 2 Paint brushes, the same size
- 3 bricks
- Aluminum sheet, cut into 3 equal sizes
- Wood sheet, cut into 3 equal sizes
- Plywood, cut into 3 equal sizes
- pH paper
- pH probe
- pH calibration fluid
- Proscope

Results and Discussion
The pH of 2.5 (distilled vinegar) had paint wearing away on the pine wood and splotches of white on the aluminum. The pH of 4 (acid rain) had paint wearing away on the pine wood, plywood, and the aluminum. The pH 7 (distilled water) had paint wearing away on the aluminum. The bricks that we tested didn’t have much of a change from the beginning. We thought that the acid rain would wear down the surfaces. What actually happened was the pH of 7 (distilled water) wore down the aluminum the most, the pH of 4 (acid rain) wore down the plywood the most, and the pH of 2 (distilled vinegar) wore down the pine wood the most.

Conclusion
Our hypothesis was not totally correct, because the solutions reacted differently on the various materials.

References
https://www.epa.gov/acidrain
http://www.isustainableearth.com/water-conservation/acid-rain-facts

Color Analysis App

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