Acid rain in a bottle (NOx version)

This is a way to model acid rain in a container for students to see. For this demonstration what you

need is

1) large beaker to contain everything

2) small beaker to react the Cu with Nitric Acid

3) Aluminum foil to cap the beaker

4) indicator of some type

5) Cu and Conc. Nitric Acid

6) a Squirt bottle of water

7) **A HOOD of some sort**

Setup: (everything inside a hood setup)

Add water to the larger beaker and add indicator (making sure not to mix this with the Nitric acid)

should be neutral pH

Place Conc Nitric acid (~1 mL) in the small beaker and place it inside the larger beaker

Ready the aluminum foil with holes poked in the simulate rain

When ready:

Add the Cu metal to the nitric acid releasing NOx inside the larger beaker. After gas has filled larger

beaker squirt a little water onto Al foil to drop through the holes absorbing the NOx gas. As the acidic liquid drops into the water with the indicator, it will change the neutral solution to an acid. This is visualized by the change in the indicator color.