Acid Rain Experiment for the Student with Little or No Vision

Environmental issues dominate our world today. We are facing a range of problems, from climate change, to water pollution, to deforestation, etc. Like all students, a blind or low vision student is equally aware of the impact of humanity on the world, but they can have a reduced availability of practical experiments to enable them to discover the impact of our changing environment in a tactile manner. Carbonic acid in rainwater can have a huge effect on certain types of rocks, dissolving and rotting those rocks to the point where whole landscapes can break down. In the west of Ireland we have a very unique limestone plateau landscape, known as the Burren (in Co. Clare and parts of Galway) where acid rain has dissolved the karst limestone rock surface to create huge blocks of rocks called clints and large gaps between the rocks called grikes.

You can look up information on the Burren at:

https://www.ireland.com/en-no/amazing-places/the-burren/

http://www.burrengeopark.ie/learn-engage/the-geology-of-the-burren/

Home based acid rain experiment:

Requirements:

1. A standard breakfast bowl.
2. A bottle of vinegar (vinegar is an acid).
3. A piece of chalk (white chalk works best).

Method:

1. Let your child take a piece of chalk and scrape off any outer plastic type film using a pot sponge scourer.
2. Place the chalk piece into the breakfast bowl.
3. Pour vinegar into the base of the bowl.
4. Wait a few minutes for the acid to start to dissolve the chalk.
5. Let your child listen to the sound of the acid dissolving the chalk, there may even be some bubbles which they can hear popping.
6. Let your child feel the dissolving chalk in the bowl, it will be a tacky texture.
7. Discuss with your child how this simple experiment is actually taking place with a substance called carbonic acid in the rainwater attacking real rocks and altering our landscape.