

## Measuring Soil pH lab

### **Get with your partner**

Get your soils

Make sure you keep track of which soil you used.

### **Get Goggles**

### **Mash the soil up in a mortar and pestle**

Only use a little bit of soil

Remove any plant debris

Make sure that it's a finely ground as it was last week

### **Get four strips of litmus paper**

Keep them dry before you use them to test

### **Get Chemical A**

Pour a tiny amount into your beaker no more than 10mls

Dip the litmus paper in chemical A

Determine if the chemical is an acid or a base

Do this by comparing the color of the paper to the pH guide contained within the litmus paper container

Record if you think if the chemical is an acid or a base and what color the paper was

Dispose of chemical A down the drain

### **Get Chemical B**

Pour a tiny amount into your beaker no more than 10mls

Dip the litmus paper in chemical B

Determine if the chemical is an acid or a base

Do this by comparing the color of the paper to the pH guide contained within the litmus paper container

Record if you think if the chemical is an acid or a base and what color the paper was

Dispose of chemical A down the drain

**Get distilled water**

Pour 50mls into a beaker

Put your ground dirt into the beaker with the water

Stir dirt into water until the dirt is completely dissolved

Test the dirt water with your litmus paper

Determine what pH the dirt water is

Record this information along with where the dirt was from.

**Grind your other dirt**

Repeat the grind up the dirt step

Repeat the distilled water step including the recording of the pH and where its from

**Conclusions: Write all of this on your paper**

What chemicals do you think chemical A and B could be?

Use google for a list of common chemicals

Was your prediction for what your soil's pH would be last class correct?

Why? What factors do you think played into it contributed to the soil's pH?

Were your two soils pHs different?

If so how far different were they?

Why were they so different?

If not

Why were they the same?

Do you think grinding the soils changed the soil's pH?

What do you think fertilizer might have on soil acidity?

What are some other ways you think you might be able to test pH?