

Investigating Soils

Investigate Activity

Materials (per group)

plastic cup, 10 oz
plastic spoon
litmus paper

soil sample
distilled water
clock with second hand

Advance Prep

- You may wish to gather samples from various areas of your city or town. Try to include areas that might be cultivated for gardens as well as those by malls or industrial areas. Be sure to get permission to gather the samples before doing so. Have students test each sample and compare the results.
- You may wish to have each student collect a sample of soil from home or the school yard and bring it to class.

Hints and Tips

Show how to use litmus paper to test for acidity.

Safety Note

Have students wipe up any spills immediately.

Name _____ Date _____



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Follow This Procedure

Record your observations in the chart.

	Color of litmus paper
10 sec	
5 min	
15 min	

Interpret Your Results

1. Based on your observations, how would you **classify** your soil—acidic or not acidic?

2. Why do you think some acid soils take longer than others to turn the litmus paper red?

Name _____ Date _____

3. Write an **operational definition** for an acidic soil.

Inquire Further

How do you think changing the acidity of soil would affect the plants that grow there? Develop a plan to answer this or other questions you may have.

Self-Assessment Checklist	
I followed instructions to test the acidity of a soil sample.	_____
I made and recorded observations of the color of the litmus paper.	_____
I classified the soil sample as an acid or a non-acid.	_____
I wrote an operational definition of an acidic soil.	_____
I communicated activity results to my group.	_____



Notes for Home Your child tested local soil for acidity.

Home Activity: Help your child identify circumstances when knowing the characteristics of the soil, including acidity, is important.