

STEAM CHALLENGE



Rolling Limits

1

Introduction

No two soil is alike, and their properties can change with time. Engineers often test the soil to obtain most of their properties. One of the tests is the Plastic Limit Test, which tells the behavior of the soil.



2

Materials

- Soils (Clay, Silt)
- 1/8 inch diameter object

3

Instructions

Form little balls of soil the size of a dime. Let some of the balls dry out a little.

Roll the ball out to form a string. Measure the diameter of the string with the reference cylinder. Keep rolling until it breaks. Repeat with the other soil balls.

4

Let's Discuss

Does the moisture in the soil affect the performance? Some strings broke faster than others; why? Are the strings with a diameter bigger than 1/8 inch plastic or non-plastic? What about the ones with a smaller diameter? How do engineers apply this concept and use this test?



5

Tell the World!

Liked this activity? Learned something new? Shared what you discovered with your friends. Keep asking questions and stay curious!

