



## Mountains to Sound Greenway Trust

### *Next Generation Stewards*

#### Spotlight on Soil

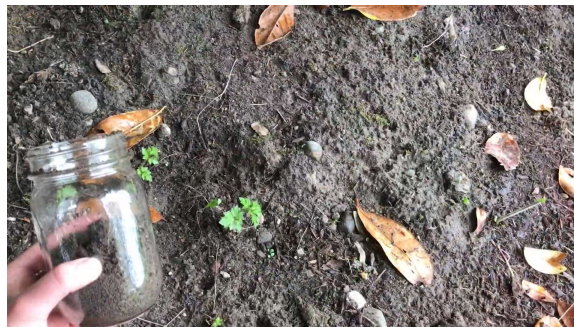
Soil is a fascinating biotic AND abiotic part of forest ecosystems, containing rocks, minerals, decomposed organic matter, and a multitude of living organisms. How can soil possibly be both living AND not living? The biotic parts include earthworms, bugs, bacteria, and fungi. And the abiotic parts include rocks and minerals. In fact, in just a handful of soil, there can be 10,000,000-100,000,000 individual organisms from about 5,000 different species! And these organisms are just as important to protect as the ones living above ground. As ecosystem stewards, it's our job to help healthy soil develop by allowing natural decomposition to take place. For example, we can leave leaves and branches to decompose where they fall so they help build healthy soil. Watch the video: [mtsgreenway.org/get-involved/education/virtual-education/next-generation-stewards](https://mtsgreenway.org/get-involved/education/virtual-education/next-generation-stewards).

#### Materials:

- Sit spot journal (or piece of paper)
- Something to write with
- Container with a lid (e.g. jar or Tupperware)
- Something to scrape up soil with (e.g. shovel or spoon)
- Water

#### How to do the activity:

- 1) Go out to your sit spot and observe the soil around you. What organisms do you see? What color is the soil? Feel the soil. What is the texture: is it rocky, soft, or something else? Smell the soil. How would you describe the smell?
- 2) Carefully fill your container about halfway with soil. Try to dig down about two inches so that you are collecting multiple layers of the soil.



- 1) Fill the rest of the jar with water. Put the top on tightly and shake it up. You should end up with some very dirty water.



- 2) Put the container somewhere it won't get moved and wait for the particles to settle.
  - By mixing them in water and letting them settle, the water will separate the particles apart by weight. The biggest (heaviest) ones will sink to the bottom first. The smallest (lightest) ones will settle last. You should end up with some clear water near the top. The humus is the darker brown stuff that will likely stay floating at the top of the container.



*Do you see the layers in this jar?*

- 3) Check back on the container every 30 minutes or so to see how the particles are settling. Once all the soil has finished settling, draw the layers in your sit spot journal. Be sure to add notes about your observations!
- 4) We invite you to send us your observations and drawings to [education@mtsgreenway.org](mailto:education@mtsgreenway.org)! We may share them on social media.