**Soil Examination**

submitted by Mary Zimmerman, Wake EMG

(It’s best to do this in the warm months, when there is a lot of activity in the soil.)

Objective: to see that soil is composed of many materials

* The main ingredient in soil is ROCK that has been broken into tiny particles over time.
* The next soil ingredient is decomposing animals and plants such as leaves, grass clippings, and dead insects.
* These are broken down by microorganisms. Microorganisms are creatures that live in the soil but are too small to see without a microscope.
* Finally, water and nutrients make the soil complete.

Materials Needed:

* soil from garden
* large box lids or something like that to contain the soil so that “mess” is reduced
* magnifying glasses
* chopsticks, popsicles sticks to move around the soil

Have the residents examine the soil by pushing it around with sticks, using magnifying glasses to see more closely the various “ingredients”. See if the insects can be identified. Talk about the role of soil in plants’ lives.

Look for these items:

**sand** helps the soil to drain

**clay** helps the soil hold water and nutrients

**rocks** turn into sand, silt and clay after a long time

**twigs** **and** **bits of plants** when they turn to organic matter they add nutrients and help soils drain

**earthworms** help make organic matter and make tunnels that help roots get water and air

**live insects** some insects help plants and some do not

**dead insects** when they turn to organic matter they add nutrients and help soils drain

**trash** some trash, such as paper and food scraps, turns to organic matter

**water** when soil is damp roots take water to the rest of the plant