Activity-51: The moisture content of soil

Pre-requisites:

Collect soils from different places. For this activity you can divide you soil into the following groups:

Soil with no plants growing in it.	Soil with very large trees.
Soil with herbs.	Soil with shrubs.
Soil with only grass.	Soil surrounding lakes or ponds.
Soil ½ foot to 1 foot deep	Soil at several feet depth. (From near construction site.)

Requirements:

You will need a digital weighing balance, a large newspaper, a disposable plastic spoon and a place with bright sunlight.

Procedure:

Weigh about 100 grams of soil precisely up to 3 decimal places on a digital balance.

Gently place this sample under bright sunlight. Spread the soil to cover maximum area on the paper. Make sure you sample is not exposed to bright winds and the place is not crawling with ants or other insects. If your soil had any worms or insects that can move, separate them and let them around surrounding ground (alive) before weighing the soil.

After you are convinced that the soil has completely dried, very gently weigh it again on the digital balance.

Observation:

Did you find any difference between the two masses?

Questions:

If you did not remove any soil particles and nothing crawled in and out of the soil, then what left the soil?

Soil has the ability to hold water in liquid state on the surfaces of all its particles (adsorption). The difference in mass you measured is the moisture content of the soil per 100 grams of soil.

Repeat the experiment with different types of soil and discuss the results.