

Grade 3 Understanding Earth and Space Systems – Soils in the Environment

SOIL DISCOVERY

Soil Sample Locations

e.g. • creek

- forest trail
- beach
- backyard

Soil Observations

- colour
 - e.g. brown, light brown, black
- particle size e.g. large, medium, small
- texture

 e.g. rough, smooth, soft,
 hard, sticky, gritty

Plant Observations

- colour of the plants
- tallest/strongest plant
- longest/shortest roots
- most/fewest leaves

S	Soil Sample Locations	Soil Observations	Plant Observations
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Online Resources



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SOIL DISCOVERY

Solid Ground

In the construction of structures, it is very important to know what kind of soil the buildings will be built on. The Leaning Tower of Pisa, for instance, was built on a mixture of clay, sand, and shells. This soil mixture, unfortunately, was not good at supporting the heavy weight of the tower and as a result, the soil began to shift and compress under the tower's weight, causing it to lean. Thankfully, engineers today carefully examine the type of soil in a plot of land before allowing any construction to begin.

In general, soil that is a mix of sand and gravel provides a stable foundation so long as it is kept well drained and confined. Other soil mixtures, such as those containing silt and clay, can be built on too but require extensive compacting and treatment. Regardless of the soil mixture, engineers must carefully inspect and treat the soil to ensure it will not shift and move when built upon to prevent another incident like the Leaning Tower of Pisa from happening again.

