

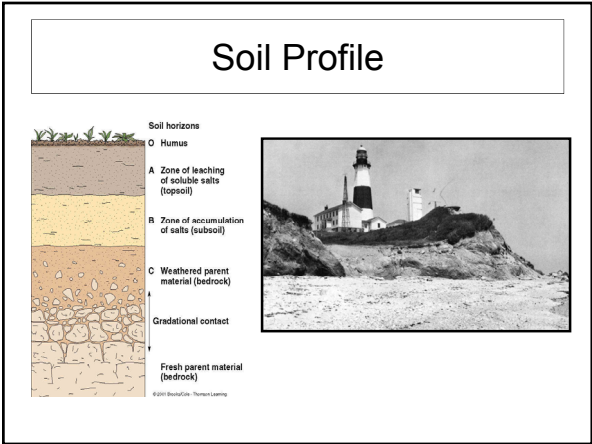
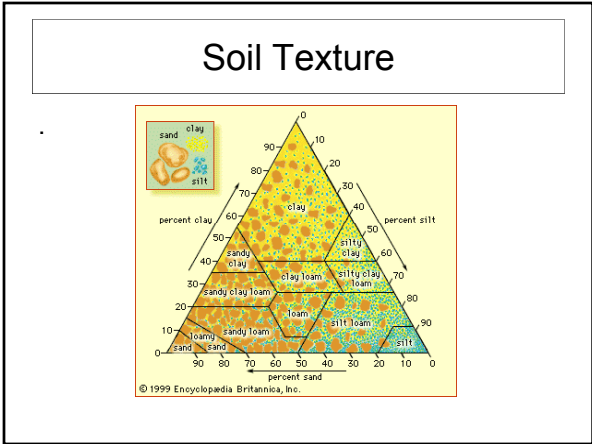
# Soils of Long Island

## Definition

- **SOIL:** The top layer of the earth composed of organic and inorganic material created over time in reaction to temperature and moisture working on parent material.

- **Soils are created and influenced locally by:**
  - Parent material (bedrock and surface material)
  - Climate (temperature and moisture)
  - Topography (slope, drainage, sun-facing)
  - Biological factors (plants, animals, insects, micro-organisms, plant roots)
  - Time (develop very slowly and change over time)

- ## Factors in Soil Analysis
- Texture – grain size of soil (sand-silt-clay ratio)
  - Structure – the way soil particles hold together
  - Drainage – the way water is retained
  - pH - soil acidity and the ability of roots to absorb nutrients
  - Soil profile – the layers (horizons) of a soil



### Soil Profile: Plymouth Loamy Sand

- Dark-colored layer is the top soil about 2 ft thick.
- Light-colored layer is the upper part of the substratum consisting of coarse sand and pebbles.



### Soil Pattern of Long Island

- Young soils (post-glacial period).
- Formed from transported soil, glacial till and scoured bedrock. (The only bedrock near the surface is in Queens.)
- Soils vary with slope and sun orientation.
- North Shore soils are rocky; South Shore soils are sandy. Where there are higher concentrations of clay, water is retained.

### County Soil Surveys

- Soil surveys provide a detailed analysis and mapping of local soils.
- They are important for programs in agriculture, road and building construction, flood control, land preservation (esp. wetlands), and soil conservation.

- <http://soils.usda.gov/survey/>
- <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx> USDA Soil Survey page

### Surface Soil Survey Map

