

Sand or Clay? (Question & Hypothesize) Soil Chefs - Lesson 2



For the Classroom

- Group structure - whole group
- Location - at seats
- Approximate time - 10 minutes

Common Core and Georgia Standards of Excellence

- S3E1c. Students will use observation to compare similarities and differences of texture, particle size, and color in top soils (such as clay, compost, and sand).
- S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
- S3CS1/S4CS1/S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
- S3CS8/S4CS8/S5CS8. Students will understand important features of the process of scientific inquiry.

Materials

- Different soils: clay, sand, compost

Reproducibles

- “Soil Segments Hypothesis” sheet (1 per small group)

Directions

1. Question

- a. Ask students if making those observations and describing the types of soils brought up any questions in their mind - particularly as they plan to plant their turnip seeds.
- b. Guide students to asking “What type of soil will our turnip grow the tallest in?” (Note that if the students ask “What type of soil will turnips like the best?” or a question similar, to reframe it to address a measurable attribute like the plant’s height or the leaves length or the root’s diameter).

2. Form a Hypothesis

- a. Review with students the three main types of soil:
 - i. Clay: soil with the smallest particles; water does not pass through easily
 - ii. Sand: soil with the largest particles; water passes through easily
 - iii. Humus / Compost: organic material; provides nutrients
- b. Allow them the opportunity to touch, smell, and look closely at each.
- c. Ask students in small groups to come up with a hypothesis to write in the Soil Segments Hypothesis sheet.

Lesson Created by Jenna Mobley for Georgia Organics