

Bellevue Botanical Garden
Living Lab Extensions with STEAM Emphasis
Correlations to Next Generation Science Standards
Super Soils Extensions for Elementary School

2nd Grade Super Soils Extension: Rocks and Soils at the Garden

In this extension, students listen to a reading of the book *Soil Basics*, to prepare them for an exploration of rocks and soils at the garden in the subsequent two videos. Scientific vocabulary learned from reading is applied during the garden tour. Viewers are invited to complete an imaginative drawing and to try a simple hands-on experiment.

1. Soil Basics Book Reading
Duration: 4 minutes
Supplies: None
2. Intro to Soils
Duration: 8 minutes
Supplies: Blank paper and crayons or color pencils
3. Bellevue Botanical Garden Rocks
Duration: 3.5 minutes
Supplies: None.
4. Soil Experiment Demo
Duration: 3 minutes
*At home experiment takes 15 minutes to set up and a day to observe.
Supplies: Clear container, preferably with lid, if trying the experiment.

Correlations to Next Generation Science Standards and BSD Curriculum

Science

- This extension links directly to the fall earth science unit, "Pebbles, Sand, & Silt".
- Students learn about earth materials used in building, preparing them for the STEM challenge, *Engineering is A Sticky Situation*.
- 2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. .
- 2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
- 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

- 2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly.
- 2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.

Literacy- Reading Foundational Skills & Reading Informational

- RF.2.3 Know and apply grade-level phonics and word analysis skills in decoding words. Phonics and Word Recognition.
- RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- RI.2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- RI.2.6 Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
- RI.2.5 Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.