



# Preparing Soil

Standard Connection:


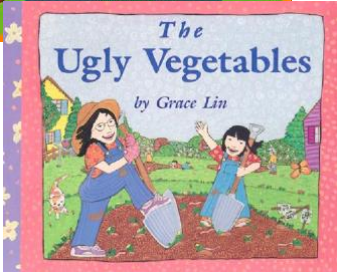
- ELA.RL.PK4.1
- ELA.W.PK4.5
- M.MD.PK4.3
- S.ES.PK4.3
- S.T.PK4.1
- SS.OW.PK4.5
- PD.FM.PK4.1
- PD.SHS.PK4.5

**Enduring Understanding(s):**

- Living things are part of interdependent systems.

**Essential Question(s):**

- How do people impact the environment in positive or negative ways?

Materials	Vocabulary	Books
<ul style="list-style-type: none"> <li>• <i>Zinnia's Flower Garden</i></li> <li>• <i>The Ugly Vegetables</i></li> <li>• bin of soil</li> <li>• small rakes, trowels, forks</li> <li>• small tongs or tweezers</li> <li>• sifters</li> <li>• trays</li> <li>• magnifying glasses</li> <li>• Beautiful Stuff, e.g., cleaned plastic bottle caps, pebbles, bits of paper, etc., added to soil</li> <li>• writing utensils</li> <li>• paper</li> </ul>	<p><b>aerate:</b> make holes for air</p> <p><b>garden:</b> a section of ground where herbs, fruits, flowers, or vegetables are grown</p> <p><b>plant:</b> to put in the ground to grow</p> <p><b>prepare:</b> to make ready</p> <p><b>seed:</b> part of a plant that can grow into a new plant</p> <p><b>sift:</b> to separate out</p> <p><b>soil:</b> a mixture of minerals, water, air, and organic matter</p>	 

Intro to Centers	
<b>Preparation:</b> <i>Set up materials.</i>	
“In <i>Zinnia’s Flower Garden</i> , Zinnia, the girl, and her mother <b>planted seeds</b> . What do you notice?”	Show illustrations. <b>Children respond.</b>
“They <b>prepared</b> the <b>soil</b> for their <b>gardens</b> . They used tools to <b>aerate</b> - make holes for air - and remove stones.”	
“Why do <b>gardeners prepare soil</b> before they <b>plant</b> ?”	<b>Children respond.</b>
“Today in Science, you can use these tools to <b>prepare soil</b> with these tools. You can <b>aerate</b> the <b>soil</b> ?”	Model.
“You can <b>sift</b> the <b>soil</b> . What do you notice?”	Model. Show children sifted materials.

### **During Centers:**

Encourage children to sort, group, and label sifted materials. Encourage children to graph the groups of materials. Compare and contrast the groups of sifted materials to *Making Collections*. Encourage children to use magnifying glasses. Encourage children to document their observations in Creative Writing.

### **Guiding Questions During Centers:**

- Why is it important to prepare soil?
- How is preparing soil similar to or different from *Making Collections*?
- How is preparing soil similar to or different from the illustrations in *Zinnia's Flower Garden/The Ugly Vegetables*?
- How can you document your observations?

### **Thinking and Feedback:**

Invite children to share their processes. Encourage children to describe the challenges they might have encountered.

### **Documentation:**

Collect samples of the children's work as well as photographs of their processes; use the documentation to launch a discussion during Thinking and Feedback.

### **Provocation:**

Encourage children to use sifted materials in Creative Arts, Blocks, and Dramatic Play.

### **Differentiation/Accommodation:**

For Intro to Centers, children with limited verbal skills can use a pre-programmed voice output device to answer questions about the story. (Keep in mind these will likely be closed-ended questions, as those are easiest to program into devices.) This can also be used to help students answer Guiding Questions. During Centers, provide a variety of materials to meet the children's fine motor and sensory needs. Provide a non-mess way to participate for children with sensory issues by allowing them to sort items without sifting first.