

i3 STC Kit Extension Activities

North Carolina

<i>Grade: 3^d</i>
<i>Kit Name: Plant Growth and Development</i>
<i>Essential Standard(s): (List number, standard, clarifying objectives where appropriate)</i> 3.L.2: Understand how plants survive in their environments. <i>3.L.2.2: Explain how environmental conditions determine how well plants survive and grow.</i>
<i>Unpack the Standard (What does it mean? What is the "Big Idea"?):</i> <i>Environmental conditions can impact the survival and growth of plants.</i>
<i>What is the Engaging (will get the student interesting) Essential Question that the students will be trying to answer as a result of this Extension?</i> <i>What factors impact the growth and survival of plants?</i>
<i>Which activities in the kit touch on the Standard(s) and how can they be adjusted to better address the Standard(s)?</i> <i>Teach the following extension activities before teaching Lesson 3. This lesson can be used as a precursor to the extension activity for 3.L.2.4.</i>
<i>Extension Activity:</i> <i>Teacher Note: Teacher will need to acquire two small plants that are the same type of plant three or four days before conducting the activity. One of the two plants needs to be taken care of (water, sunlight, etc.). The second plant needs no water or sunlight to demonstrate the essential needs for the plant's survival. Students will predict/form a hypothesis in their science notebooks related to what they think each of the plants will look like. Students may also draw a picture to demonstrate their prediction.</i> <i>**At the end of the lesson, have students confirm or reject their prediction or hypothesis. Also, ask students to answer the essential question.</i> <i>Teacher will lead classroom discussion comparing and contrasting the two plants. A Venn Diagram or T-Chart would be a helpful tool to use to show the similarities and differences between the two plants.</i> <i>Questions to consider to help facilitate discussion:</i> <ul style="list-style-type: none">• <i>What do you notice?</i>• <i>What do you think caused this to happen?</i>• <i>What does this teach us about plant survival?</i>

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Grade: 3rd

Kit Name: Plant Growth and Development

Essential Standard(s): (List number, standard, clarifying objectives where appropriate)

3.L.2: Understand how plants survive in their environments.

3.L.2.4: Explain how the basic properties (texture and capacity to hold water) and components (sand, clay and humus) of soil determine the ability of soil to support the growth and survival of many plants.

Unpack the Standard (What does it mean?? What is the "Big Idea"?):

What are the basic properties of soil that help plants grow?

What is the Engaging (will get the student interesting) Essential Question that the students will be trying to answer as a result of this Extension?

How does soil support the growth and survival of plants?

Which activities in the kit touch on the Standard(s) and how can they be adjusted to better address the Standard(s)?

Teach the following extension activities after teaching Lesson 3. This lesson can be used as a supplement to the extension activity for 3.L.2.2.

Extension Activity:

As an introduction to this lesson, the teacher will conduct a classroom brainstorming activity where the students share what they know about the basic properties and components of soil.

For this activity, the teacher will create several centers for students to observe the basic properties of different types of soil. Prior to teaching the lesson, the teacher will need to set up four separate centers containing the various types of soil. The soil should be put into separate containers and placed in the centers. Examples of soils would be: humus, clay, sand, gravel, etc. As students analyze the different types of soil, the students will complete the center activity chart provided.

Soil Type	How well does the soil hold water?	Will this type of soil be a good choice for a plant environment? Why or why not?
Soil #1		
Soil #2		
Soil #3		
Soil #4		

Teacher Notes: Copy and paste this center activity chart into a word document for students to fill out and place into their science notebooks. After the students have completed the notebooking activity, conduct a classroom experiment where the teacher puts water into separate containers with the soils for students to observe how well the soils absorb water. After the experiment, students will respond in their notebooks about what they observed.