

# Soil

<b>Grade Level:</b> 3 <sup>rd</sup> -5 <sup>th</sup>	<b>Topic:</b> Soil	<b>Estimated Time:</b> 50 minutes
<p><b>Brief Lesson Description:</b> Students will explore soil composition. They will get hands on with soil samples and record scientific observations. They will make simple calculations and predictions as well.</p>		
<p><u>Next Generation Science Standards:</u>  <b>3-LS4-4:</b> Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.  <b>5-ESS3-1:</b> Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.  <b>5-LS1-1:</b> Support an argument that plants get the materials they need for growth chiefly from air and water.</p> <p><u>National Agricultural Literacy Outcomes:</u>  <b>T1. 3-5. b:</b> Explain how the interaction of the sun, soil, and water and weather in plant and animal growth impacts agricultural production.  <b>T1.3-5 e:</b> Recognize the natural resources used in agricultural practices to produce food, feed, clothing, landscaping plants, and fuel (e.g., soil, water, air, plants, animals, and minerals).  <b>T4.3-5d:</b> Provide examples of science being applied in farming for food, clothing, and shelter products.  <b>T5.3-5 b:</b> Discover that there are many jobs in agriculture.  <b>T5.3-5 d:</b> Explain the value of agriculture and how it is important in daily life.</p>		
<p><u>Specific Learning Outcomes</u>  <b>Students will:</b></p> <ol style="list-style-type: none"> <li>1. Summarize the importance of soil.</li> <li>2. Distinguish and observe the four components of soil and their respective amounts.</li> <li>3. Show and calculate the amount of air in soil.</li> <li>4. Assess what happens to crops in soils with different amounts of air and water.</li> </ol>		
<p><b>Narrative / Background Information</b></p>		
<p><b>Prior Student Knowledge</b></p> <ol style="list-style-type: none"> <li>1. <b>Students should be familiar with:</b> <ol style="list-style-type: none"> <li>a. Basic role of a farmer</li> <li>b. Plants are living organisms</li> <li>c. Plants are grown in soil</li> <li>d. Basic role of a scientist</li> </ol> </li> </ol>		