

WEEK 1 Lesson 1

Science and Engineering: Comparing Seeds
Working in small groups, children compare the size, color, and shape of seeds.

S & E Big Ideas	Plants are living organisms that need water, air, nutrients, light, and space to grow. Plants can produce new plants in many ways.
S & E Guiding Question	How are seeds alike and how are they different?
Content Objective	I can ask and answer questions about seeds (Practice 1, 1-LS1-1, 1-LS3-1)
Language Objective	I can describe my seed sort and provide evidence (Standard 3)
Vocabulary	seed: Part of a plant that can grow a new plant fruit: anything that grows on a plant and contains seeds vegetable: the edible root, tuber, leaf, stem, or flower of a plant
Materials and Preparation	<ul style="list-style-type: none"> ● Seed cards, cut apart, 1 set per small group * Optional - Alternatively, real extracted seeds from foods to extract the seeds for physical comparison. ● Comparison Chart, 1 set per small group *Optional - Alternatively, real extracted seeds from foods to extract the seeds for physical comparison. ● chart paper and markers
Opening 3 minutes	<p style="text-align: center;"><i>We have started learning about resources. Resources are things that people need and use. Plants are one of the most important resources for people; we use plants for many different purposes, including for food. Some plants start from a seed.</i></p> <p>Invite children to share what they already know about seeds.</p> <p style="text-align: center;"><i>Over the next few weeks, we will grow beans and other</i></p>

	<i>plants that people eat!</i>																
Investigation 10 minutes	<p>Discuss with children ways that things can be compared-size, color, and shape.</p> <p>Create a comparison chart on the chart paper. Include fruits of your choice. Model a comparison thinking strategy by comparing two items that are similar in the classroom to compare. Use guiding questions such as how they are similar or different in size, color, and shape.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Seed Type</th> <th style="width: 25%;">Size (small, medium, large)</th> <th style="width: 25%;">Color</th> <th style="width: 25%;">Shape Draw the shape of the seed</th> </tr> </thead> <tbody> <tr> <td>Avocado</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Kiwi</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Corn</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align: center;"><i>Now you will have a turn to look at seeds.</i></p>	Seed Type	Size (small, medium, large)	Color	Shape Draw the shape of the seed	Avocado				Kiwi				Corn			
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Discussion	<p>In small groups, children complete the Comparison Charts. Provide each small group with a corresponding set of cards.</p> <p>If time allows, challenge children to guess the location of each of the seeds. Are they in the center of the fruit or scattered throughout? Are there many seeds or only a few? Are the seeds, seeds we eat or spit out? Explain that scientists use different criteria when they are making observations.</p>																
Closing	<i>Over the next few weeks, we will be looking at seeds, watching them change and grow, and talking about plants that are specific to Maine.</i>																
Standards	<p>1-LS3-1: Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents</p> <p>Standard 3: Present information and supporting evidence appropriate to task, purpose, and audience so listeners can follow the line of reasoning and incorporate multimedia when appropriate.</p>																
Ongoing assessment	Observe children as they work in their small groups. Are they discussing the seed characteristics and comparing them?																