



## Third Grade: FOSS Life Science - Structures of Life



Investigation Title and Synopsis	Concepts	Assessments and TE Page Numbers
<p><b>1. Origin of Seeds</b> Students conduct a seed hunt by opening fresh fruit and locating the seeds. They describe and compare seed properties and structures. They investigate the effect water has on the seeds by setting up seed sprouters and observing and recording changes over a week. Students systematically find out how much water lima beans soak up in a day and read about seeds.</p>	<ul style="list-style-type: none"> <li>• Seeds develop in the plant structure called a fruit</li> <li>• Different kinds of fruits have different kinds and numbers of seeds</li> <li>• Seeds have a variety of properties</li> <li>• Seeds undergo changes in the presence of water</li> <li>• A seed is an organism, a living thing</li> <li>• A seed contains the embryo plant and a store of food and water</li> </ul>	<ul style="list-style-type: none"> <li>• Pretest - Assessment Masters (pages 297-302) with Benchmark Assessment (pages 260-271)</li> <li>• Part 1 Embedded Assessment: Teacher Observation: (page 240)/Describe Properties of Seeds/Know fruits contain seeds/Science Notebook Sheet 1 <i>Comparing Seeds</i> (page 185) and Science Notebook Sheet 2 <i>The Sprouting Seed</i> (page 186)</li> <li>• Part 2 Embedded Assessment: (pages 241-242)/ Science Notebook Sheet 3 <i>Response Sheet-Origin of Seeds</i> (page 187)</li> <li>• Part 3 Embedded Assessment: Teacher Observation: <i>Weighing Seeds Accurately</i> (page 243)</li> <li>• Benchmark Assessment I-Check 1 Assessment Master (pages 303-305) with Benchmark Assessment (pages 272-277)</li> </ul>
<p><b>2. Growing Further</b> Students examine germinated seeds to determine similarities and differences in the way the plants grow. They set up a hydroponic Garden to observe the life cycle of a bean plant. Through direct observations and readings, students learn about plant structures and functions.</p>	<ul style="list-style-type: none"> <li>• Germination is the onset of a plant's growth</li> <li>• Plants need water, light, and nutrients to grow</li> <li>• The life cycle is the process a seed growing into a mature plant, which in turn produces seeds</li> <li>• The fruit of the plant develops from the flower</li> </ul>	<ul style="list-style-type: none"> <li>• Part 1 Embedded Assessment: (page 244)/ Teacher Observation <i>Comparing Germinated Seeds</i> and Teacher Sheet (page 215) identify parts of germinated seeds including roots, stems, and leaves</li> <li>• Part 2 Embedded Assessment: (pages 245-246) Science Notebook Sheet 6 <i>Bean Plant Life Cycle</i> (page 191)</li> <li>• Benchmark Assessment I-Check 2 Assessment Master (pages 306-308) with Benchmark Assessment (pages 278-283)</li> </ul>

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<p><b>3. Meet the Crayfish</b>            Students observe and record some of the structures of a crustacean, the crayfish. They investigate crayfish behavior and map where the crayfish spend their time within their habitat. Through readings, organism cards, and a video, students learn about adaptations of organisms in different environments.</p>	<ul style="list-style-type: none"> <li>• Crayfish have observable structures such as legs, pincers, antennae, eyes, swimmerets, tail, and mouthparts</li> <li>• These structures have functions that help the organism survive in its environment</li> <li>• Behavior is what an animal does</li> <li>• Some animals claim a territory that they defend from other animals</li> <li>• Different organisms can live in different environments; organisms have adaptations that allow them to survive</li> </ul>	<ul style="list-style-type: none"> <li>• Part 1 Embedded Assessment: (pages 247-248)/Science Notebook Sheet 3 <i>Response Sheet Origin of Seeds</i> (page 187)/ Notebook Sheet 7 <i>Crayfish Structures</i> (page 191)</li> <li>• Part 2 Embedded Assessment: (pages 249)/ Science Notebook Sheet 10 &amp; 11 <i>Adaptations</i> (pages 195-196)/Identify structural and behavioral adaptations in 4 categories: movement, protection or defense, getting food, &amp; caring for young/(pages 128-132 #7-#13)</li> <li>• Benchmark Assessment I-Check 3 Assessment Master (pages 309-312) with Benchmark Assessment (pages 284-291)</li> </ul>
<p><b>4. Meet the Land Snail</b>            Students study snail structures and behaviors and set up an appropriate habitat for the animals. They compare the structures and behaviors of the snail (a gastropod) to the crayfish (a crustacean). Through readings, students study examples of organisms that change the environment. And they read about what can happen to organisms when environments change.</p>	<ul style="list-style-type: none"> <li>• Land snails have a coiled shell, a large foot on which they glide, and a body with a variety of structures</li> <li>• An organism's structures have functions that help it survive in its habitat</li> <li>• The structures found on different kinds of organisms show some similarities and some differences</li> <li>• Some organisms that lived on Earth died out when environments changed</li> <li>• Organisms can change their environment; this can be detrimental or beneficial</li> </ul>	<ul style="list-style-type: none"> <li>• Part 1 Embedded Assessment: Teacher Observation: Confidence and attentiveness while observing snails and observations made of snail structures using appropriate language (page 250)</li> <li>• Part 2 Embedded Assessment: (pages 251-252)/Science Notebook Sheet 13 <i>Comparing Structures</i> (page 197)</li> <li>• Benchmark Assessment I-Check 4 Assessment Master (pages 313-314) with Benchmark Assessment (pages 291-295)</li> <li>• Posttest Assessment Master (pages 297-302) with Benchmark Assessment (pages 260-271)</li> </ul>