Desert Stories
3rd Grade

Overview
Desert Stories consists of three, hour-long lessons delivered by staff from the Asombro Institute for Science Education in your classroom and schoolyard.

- **Lesson 1** - Students receive a “mystery object” (yucca seed pod) and listen to a reading of Night Life of the Yucca: The Story of a Flower and a Moth to determine what their mystery object is. They complete a yucca life cycle model as a class then assemble the yucca moth life cycle model on their own.

- **Lesson 2** - Students complete a scientific investigation to discover the common number of insect holes in yucca seedpods. They will measure, create graphs, and read and answer questions to better understand their results and conclusions.

- **Lesson 3** - Students practice skills with a second scientific investigation on yucca roots and leaves. They will measure, convert feet to inches, graph, and describe their results and conclusions. They will also investigate a yucca leaf model to learn how yucca leaves are adapted to an arid environment.

Phenomenon
How do the yucca and yucca moth interact with each other and with their environment?
Do the roots of a yucca make it better able to survive in the desert?

Next Generation Science Standards
3-LS1-1 Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

<table>
<thead>
<tr>
<th>Science &amp; Engineering Practices</th>
<th>Disciplinary Core Ideas</th>
<th>Crosscutting Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking questions</td>
<td>LS1.B: Growth and development of organisms</td>
<td>Patterns</td>
</tr>
<tr>
<td>Developing and using models</td>
<td></td>
<td>Structure and Function</td>
</tr>
<tr>
<td>Planning and carrying out investigations</td>
<td>LS4.C: Adaptation</td>
<td></td>
</tr>
<tr>
<td>Analyzing and interpreting data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using mathematics and computational thinking</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Common Core State Standards
3.MD.B.3 - Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.
SL.3.1.B - Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
SL.3.1.C - Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
SL.3.1.D - Explain their own ideas and understanding in light of the discussion.
SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
L.3.1.A - Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.