

## Kary Lloyd-2nd Grade Virtual Reality Lesson Plan: Principal, I Shrunk the Students

Pretest Questions	<ul style="list-style-type: none"> <li>• How do you know if an animal is an insect or an arachnid?</li> <li>• How would it feel if entered a Land of Giant Insects where your size and the size of the insect were switched? (In other words, you would be tiny and the insect would be human-sized)</li> <li>• Is it possible to experience something like this scenario? If not, why? If yes, how?</li> </ul>
Objectives	<ul style="list-style-type: none"> <li>• Ss will review what they know about insects and their behavior.</li> <li>• Ss will apply what they've learned about insects to a scenario where they are in a world in which they are as small as an insect and have to navigate in the world.</li> <li>• Ss will use 21st century skills with Google Cardboard and Pages or Comic Life.</li> <li>• Ss will write a fictional story of what happens to them in the Land of the Giant Insects</li> </ul>
Catch	<p>Show a clip from "Honey I Shrunk the Kids" (there are many clip possibilities. One could be when the characters are encountering the Python.)</p>
Activity	<ol style="list-style-type: none"> <li>1. Students will participate in a discussion to review what we've learned about the difference between insects and arachnids and their behaviors.</li> <li>2. Teacher will present the scenario...Imagine that your size and the size of insects were switched. This would mean that you were as little as an insect and the insects were as big as you.</li> <li>3. Students think-pair-share what they think it would feel like.</li> <li>4. Teacher asks for a few volunteers to share with the class.</li> <li>5. Use a "magic wand" and tell them that you are going to shrink them and "blow up" or enlarge the insects to be human size.</li> <li>6. Explain that we're going to enter a virtual world. This means that we'll look through some Google Goggles, and what we'll see will make us feel like we are really there.</li> <li>7. Use a headset or Google Cardboard to allow students to experience the Virtual Reality. (Optional: The Unity Project can be loaded onto classroom machines and students can navigate through the world using the movement keys that have been scripted. This can allow</li> </ol>

	<p>for more students to navigate the world if you have limited Google Cardboard Headsets.)</p> <ol style="list-style-type: none"> <li>8. Students draw a picture of them in the scenario.</li> <li>9. Students write a fictional story about entering the Land of the Giant Insects. Stories need a beginning, middle, end, problem, and solution.</li> <li>10. Students create a digital cover for their story using Pages or ComicLife.</li> </ol>
<p>Review</p>	<p>Students get into groups of 3 and...</p> <ul style="list-style-type: none"> <li>• discuss how they know they can identify insects and arachnids.</li> <li>• share their stories and pictures</li> <li>• discuss what technology we used to experience the scenario of the students being shrunk and the insects being giant.</li> </ul>
<p>Assessments</p>	<p>No Assessment besides Posttest questions. This activity is designed to be an activity to wrap up our insect unit and expose the students to VR. Science assessments about the parts of an insect, life cycles, and insect behaviors will be given before this culminating activity.</p>
<p>Posttest Questions (same as pretest questions)</p>	<ul style="list-style-type: none"> <li>• How do you know if an animal is an insect or an arachnid?</li> <li>• How would it feel if entered a Land of Giant Insects where your size and the size of the insect were switched? (In other words, you would be tiny and the insect would be human-sized)</li> <li>• Is it possible to experience something like this scenario? If not, why? If yes, how?</li> </ul>
<p>Standards</p>	<p>Science: Life Systems  <u>Characteristics of Organisms:</u> Students describe observable characteristics of living things, including structures that serve specific functions and everyday behaviors.  <u>Life Cycles of Organisms:</u> Students sequence life cycles of living things, and recognize that plants and animals resemble their parents.  <u>Organisms and Their Environments:</u> Students show connections between living things, their basic needs, and the environments.</p>
<p>Crosscutting Concepts from NGSS</p>	<ol style="list-style-type: none"> <li>1. Patterns: Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.</li> <li>2. Cause &amp; Effect: Events have causes, sometimes simple, sometimes multifaceted. Deciphering causal relationships, and the mechanisms by which they are mediated, is a major activity of science and engineering.</li> </ol>