

LCM Lesson Plan**The Succession Race**

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Grade level: 4th/5th grade

Standards: Science A14, B1, C2

English/Language Arts A1, D4

Cultural A3, B2

Science Concept: Students will learn about factors, which affect succession in a boreal forest.

<u>Gear Up</u>	<u>Process Skills</u>	<u>Materials</u>
<p>Read the story "Tongass" by Shelley Gil</p> <p>Discuss the different parts of the story.</p> <p>Be sure to discuss how there is interdependence between the living things in the forest.</p> <p>Questions might include: What do deer eat in the woods? What are the biggest trees in the forest? What impact do humans have on forests?</p>	<p>Communication</p>	<p>"Tongass: The Last American Rainforest" by Shelley Gil</p> <p>Game Cards for Succession Race</p> <p>Scoring Rubric</p>
<p><u>Explore</u></p> <p>The students are going to play a game called "The Succession Race"</p> <p>Have the succession card cut and color coded. It helps if a floor card listing the levels (herb, shrub, young forest, mature forest and over-mature forest) are color coded to match.</p> <p>The students start as herb stage. As they take and read cards they follow the directions.</p>	<p>Observing Communicating</p>	

<p>At various intervals stop and count students in each stage. I graphed this for the students.</p> <p>Allow plenty of time to play.</p> <p>This lesson is adapted from a lesson given as part of "Project Learning Tree."</p>		
<p><u>Generalize</u></p> <p>After playing, have students discuss what happened to them.</p> <p>Some sample questions might include:</p> <ul style="list-style-type: none"> • How did insects affect your tree? • What role did sunlight play in your tree's succession? • How did other trees affect your growth? • What allowed your tree to reach its mature state? 	<p>Communicating</p>	
<p><u>Apply/Assess</u></p> <p>Have students write a story about what happened to them in the forest. The students should be sure to explain about various factors, which affect the forest.</p> <p>Have students share stories with the rest of the class.</p> <p>Score student writing according to the scoring rubric.</p>		<p><u>Vocabulary</u></p> <p>Vegetation mosaic</p> <p>Boreal forest</p> <p>Herb</p> <p>Shrub</p>

Extensions

- Have students research factors that affect another ecosystem.
- Pick a particular animal and find out how it relates to its environment.
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The Succession Race Journal Rubric

Exceeds

- Students will list four or more factors that demonstrate the interdependence between trees and their environment.
- Each factor will be supported by three or more detailed sentences, which exhibit this interdependence.
- Personal knowledge or story will demonstrate two types of independence.
- Demonstrates critical thinking by posing questions for further exploration or explanation.
- Entry is accompanied by a relevant drawing or illustration
- Uses proper D'Nealian cursive handwriting.

Meets

- Students will list two factors that demonstrate the interdependence between trees and their environment.
- Each factor will be supported by two detailed sentences, which exhibit this interdependence.
- Personal knowledge or story will demonstrate one type of independence.
- Demonstrates critical thinking by posing questions for clarification
- Entry is accompanied by a relevant drawing or illustration
- Uses legible handwriting

Approaches

- Students will list a factor that demonstrates the interdependence between trees and their environment
- The factor is supported by one or two sentences that exhibit this interdependence.
- Demonstrates limited critical thinking.
- Drawing or illustration has limited connection.

Needs more

- Student demonstrates no knowledge about the interdependence between trees and their environment
- No application of concepts presented to selected interdependence.
- Demonstrates no critical thinking.
- Drawing or illustration is not present/relevant.