

### Lesson 606 – Costa Rica: Laboratory of the Biosphere

<https://intheamericas.org/works/606-costa-rica-laboratory-of-the-biosphere/>

Learning Objective	Discussion Prompts	Lesson Activities	Vocabulary
<p>Students will learn about the similarities and differences between Biosphere II and Costa Rica’s rainforest environment.</p>	<p>How similar and different is the man-made rainforest at the Biosphere II to the one in Costa Rica? Elaborate your answer with details from the forests.</p> <p>What are the benefits and drawbacks of creating rainforests outside of a research lab? How does that help address climate change?</p>	<p>Imagine you are an earth science aficionado and you have been paying attention to the work of scientists at Biosphere II. Select a tree or flower that could be beneficial to the rainforest. Working with two-peers, create a scientific method step to present the experiment to the experts at the Biosphere II.</p> <p>The world is increasingly running out of fresh water and forests. Imagine that 70% of the Costa Rica rainforest has been replaced by agriculture for food supply. Create a display for a class museum exhibit showing a slice of the rainforest that was lost and possibly extinct.</p>	<p>affect biosphere carbon emitters ecosystem</p>
<p><b>Social Studies Standards</b></p>	<p>What might be some of the reasons that the experiment of sealing researchers in what now is the Biosphere II did not work? Would you agree to be sealed in a Biosphere facility for a long period of time? How long? Explain your answer.</p>	<p>Create a glossary (alphabetical list) for at least half of the alphabet of rainforest terms. Include explanations to help people understand the importance of its/their existence.</p>	<p>effect halt</p>
<p>Science, Technology &amp; Society: C, D</p>	<p>As population increases, so does food and water need, and space for people to live, resulting in deforestation. How can we meet the people’s needs while also halting</p>	<p>Draw a picture of rainforest animals (mammals and reptiles), amphibians and insects interacting with their habitat but hidden in the picture. Let people know how many animals they would be looking for in the title.</p>	<p>living sealed terrestrial</p>

Researchers at Biosphere II in Arizona have re-created tropical rainforest in a closed environment to study the effects of climate Change. Scientists compare that artificial environment with a tropical rainforest reserve in Costa Rica, a living laboratory where scientists record the effects of global warming on the forest and its dwellers.