Environmental Learning Outside the Classroom (ELOC)

This guidebook provides lesson ideas and activities to get students engaged with outdoor learning.

Created by the Virgin Islands Marine Advisory Service (VIMAS), an extension arm of the University of Puerto Rico’s Sea Grant College Program.

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## VIMAS Lesson Plan

<table>
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<th>Information</th>
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| **Topic**: Endangered / Extinct Species  
Grade level: 7<sup>th</sup> to 12<sup>th</sup>  
Estimated time for activity: Lecture: 15-20 minutes, Activity: 30-60 minutes |

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<th>Activity</th>
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| **Purpose**:  
To teach students what an endangered species is and provide explanations for how it became endangered.  
**Procedure**:  
Students will be given a small lecture and briefing on the material. Then they will be engaged in a fun team-building exercise that teaches them about an endangered species. |

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<th>Assessment</th>
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<td>Students will be actively engaged in discussion about endangered species. Students should be able to identify at least 3 endangered species (both marine and terrestrial). Lastly, students should also be able to identify things that they can do prevent the extinction of future species.</td>
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<th>References</th>
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| Google images for all pictures used.  
http://www.fws.gov/endangered/  
YMCA for the Dodo Bird activity. |
An endangered species is a species of animal or plant that is seriously at risk of becoming extinct. In other words, its population size is at risk of being completely depleted.

An extinct species is one that through natural or human-induced causes no longer exists.

Encourage the students to think of other species that they know of that are either extinct or endangered.
The Dodo bird (*Raphus cucullatus*), now an extinct species of flightless bird, used to inhabit the island of Mauritius. Its lack of fear for humans and inability to fly, may explain why it became extinct.

However, in the 21st century, we are witnessing the massive loss of very important species.

Climate change, overfishing, and large-scale coastal development are negatively impacting many of these species. Mangroves and corals provide habitat for many fish and other marine-life. If these species were to become extinct, our seas would no longer be productive.
What can you do to help?

Ensure that your trash stays in the trash and not on the beach.

Some turtles eat jellyfish, however; if they see a plastic bag, they cannot tell the difference. They will eat the plastic bag and eventually die.

Fish consume small plastic they confuse for small fish. They eventually die, or get eaten by something higher up the food chain.

Don’t step on or touch corals; doing so can remove their outer skin which takes time to grow back.

Just because they don’t move doesn’t mean they are not alive.
Dodo Egg Retrieval Game

You and your teammates are scientists who have discovered some eggs that belong to a Dodo bird (an extinct species). These eggs are in the Dodo’s nest which is sitting up in a tree that is very fragile. As scientists, you want to retrieve these eggs to ensure that they are healthy. Devise a strategy with your team to safely retrieve the Dodo egg without climbing the tree.

Group Discussion Topic:
• What is important to the success of this activity?
• Do you think scientists have to work together?
In the Virgin Islands, we have three species of sea turtles that frequent our shores. They include the Green Sea Turtle, the Leatherback Turtle, and the Hawksbill Turtle. Many of these turtles eat the sea grasses found here as well as some of the sponges and jellyfish. With increased protection and them being listed as endangered, their numbers are slowly increasing.
Sea Turtle Snorkel

Students will be provided with snorkel gear. Once all students are suited, beginning from the MSC dock, students will snorkel to the designated buoy line with team leader. Spotted turtles will be pointed out.
Precaution Notice

When you enter the marine ecosystem, just like any other ecosystem, caution should always be exercised. Fire coral (A), Long spine sea urchins (C), and Fire worms (E) should not be touched. Rockfish (B) have venomous spines and look very much like a rock. They can often be found on the ocean floor camouflaging with rocks and sand. Just like the barracuda (D), if you encounter one, don’t panic. Just freeze and back away slowly. These creatures will not pursue you unless you have food in your pockets!