Teacher: MML, SDRP, CZS Subject: Women in STEM Date: 2/22/21-2/26/21

NGSS & Common Core Standards	Lesson Title	Materials
SL.8.4: Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence and sound valid reasoning. MP.2: Reason abstractly and quantitatively.	IN DANGER OF BECOMING ENDANGERED	 Raw eggs One per student Markers, paint, or any other art supplies to draw on the egg Egg drop materials: Masking tape; Cardboard or construction paper; Napkins; Paper cups; Scissors Different outdoor terrain Pebbles Zoom https://www.iucnredlist.org/
SC.5.N.2.1- Recognize and explain that science is grounded in empirical observations that are testable; explanations must always be linked with evidence. MS.PS.3.1: Construct and interpret graphical displays of data to describe relationships. SC.5.L.17.1 - Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics. Vocabulary	Warmup Questions 1. What is an endangered species? How does an organism become endangered? 2. What is an endangered habitat? How does a habitat become endangered? 3. How do people's actions influence a species endangered status? What can a human do to help? 4. What is the difference between threatened, endangered, and extinct? 5. List several threatened, endangered, and extinct species (plants or animals) you know (look at the IUCN Red List if you help researching species):	
• Endangered species; Extinction; Habitat loss; Invasive; Conservation		
Activity Instructions		

Activity Instructions

- 1. Give the student one raw egg and have them decorate it to reflect their favorite endangered animal and describe the habitat where it could be found.
 - 1. Look up your favorite endangered animal (egg) on the IUCN Red List. Take notes on your animal's status.
 - 2. What is your animal's habitat range? Conservation status? What are some of the threats? Why?
- 2. The goal of the activity to is keep your species (egg) alive (unbroken) after a series of challenges:
 - 1. To simulate habitat loss and the need to travel to find new habitats, have the egg rolled down a rough terrain (rocky hill, driveway, etc.) to find out if it survives the journey.
 - 2. To simulate *anthropogenic* (human caused) activities, play egg toss between two people while gradually taking a step back from each other after each round.
 - 3. To simulate poaching, place the egg a distance away and throw a few pebbles at the eggs to see it it can be hit and cracked.
 - 4. To simulate an extinction event, attempt an egg drop from a high height. Bonus: To simulate conservation efforts, you can build a cushion for the egg in an attempt to soften the impact and mitigate the extinction.

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What did we learn? Why am I learning this? Organisms and their Ecosystems: • Discover how the world around you works. • Every organism has a unique ecosystem • Provide **inspiration** for a career in science. within which it lives. This ecosystem is their • Compare the requirements of STEM professions. natural habitat. • Understand you could be the next scientist to solve • Animals in the wild can only live in unknowns! ecosystems to which they are adapted. They must have the right kind of habitat where they **Share Your Skills** can find the food and space they need. • Share with a friend or family member one new method you • The ecosystem is where the basic needs for learned to help save a species and a habitat from becoming the organism's survival are met: food, water, endangered because the more we share, the more we care! shelter from the weather and place to breed and nurture it's young. All organisms need to • Connect with us on Flipgrid (https://flipgrid.com/seatrek) to adapt to their habitat to be able to survive. share your findings or submit any questions!

Real world applications?

- 1. Did your egg survive all the challenges? If not, which challenge caused it to break?
- 2. How do you think you could prevent the egg from breaking during the next attempt? Record your observations from the first experiment and how you would change the challenge for the next attempt.
- 3. Which species do you think are the most susceptible to which threat? Why?
- 4. Even if your species isn't local to your area, can you think of anything you can do in your daily life that could make a difference in the animal's status?

Observation Notes

