



Engineering Solutions for Animal Care

6th-12th Grade Virtual Education Class

Standards Alignment:

MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS1-2 Evaluate competing design solutions using a systematic problem to determine how well they meet the criteria and constraints of the problem

HS-ETS1-2 Engineering Design: Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

Overview:

Pre-class activity (10-15 min): Take a virtual tour through the St. Louis Aquarium at Union Station! We will send a link to an online video that your students can watch to learn about the Aquarium and prepare them for the virtual class!

Virtual Class (60 min): Students will learn how animals affect us on a daily basis. Animals help us in three different ways: sport, service, and research. When an animal becomes injured, what do we do? Students will be given different "Animal Cases" on how they can help out their animal. Students will create a blueprint and use household items given to them on how they can assist their animal. After the activity, students will meet with two Animal Ambassadors on how we can take care of them at home and in the wild.

Suggested Supplemental Projects:

- Students may find ways to assist with shelters or sanctuaries on helping animals in human care. Have them think of ways on what the animals need to survive and what assistance they need.