



Sea Turtle Prosthetic Party Activity (virtual)

Engineering Design Challenge

Preparation from home

- Find multiple plush animals from home.
- Using duct-tape or other items, create a “flipper” for the plush animal for students to create a prosthetic for. You can make front and rear flippers, you can cut off part of the flipper you built so that the students can create a “flipper”.
- Find random materials at home that can be used to create a prosthetic and “price” them (usually from \$0.05 to \$4.00 or “bargain item”)
 - Examples include:
 - Popsicle sticks (\$0.50)
 - Tooth picks (\$0.25)
 - Cardboard (2” x 2”) (\$2.00)
 - Bubble Wrap (2” x 2”) (\$3.00)
 - Twist ties (\$0.25)
 - Packing peanuts (Bargain)
 - Egg cartons (Bargain)
 - Juke cord/craft cord (\$1.00)
 - Ribbon (\$0.50)
 - Other items needed
 - Scissors
 - Masking tape (\$1.00 for forearm’s length)
 - Pen/Pencil
 - Paper



Photo: Olive Ridley Project

Instructions

- Show the slideshow that corresponds to the lesson.
- Introduce the activity!
 - Students will create a prosthetic for their assigned “patient”.
 - **Rules:**
 1. **The prosthetic must fit the animal comfortably.**
 2. **The prosthetic must function as the missing appendage.**
 3. **The prosthetic must be easy to put on and take off.**
- Give each group of students an assigned “patient”, their \$10,
- Give students about 5 or so minutes to write about their patient, and plan and sketch what prosthetic are going to build for their patient.
- Once “approved” - they can come to you and start to “purchase” their materials.
 - Materials can ONLY be returned IF not used/manipulated.
- Give students about 30 minutes to build the appropriate prosthetic for their patient.
 - If they finish early, give some feedback to see if they can find a way to improve their set up.
- Once all of the students are done- have each group share their sea turtle patient and their new prosthetic - what materials they used, why they used them, what worked, what didn't work, what materials do they wish they had to use.
- If extra time- you can allow them to redesign their prosthetic.

