

Situation

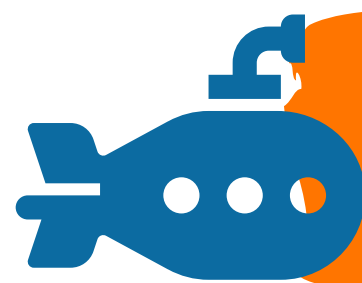
Create a simple machine to raise and lower a submarine for repairs!

Problem & Career Focus

Your team of welders and shipfitters must design a submarine out of household materials. Once designed, your engineers need to develop a simple machine to raise and lower the submarine in and out of "water" for repairs!

Things to Consider

1. Sequencing= In what order will you build your components of the submarine?
2. Planning= how can the design of the submarine create solutions for the simple machine rescue device?



STEM Ahoy! Submarine Simple Machine Engineering Design Challenge

Criteria:

Can you use household items to construct a submarine rescue device?!

Materials:

Suggested Items:
* Popsicle Sticks
* Straws
* Cardstock Paper
* Rubber Bands
* Tape
* String
* Index Cards
* Your Imagination!



Constraints:

Determine which materials to use.
Work as a family engineering team!
* Create your own criteria!

Investigating Questions:

What steps of the engineering design process did you use?

How does the design of your submarine effect the performance of the rescue device?

How can the designs be altered to increase performance?

Educational Standards Correlations

Language Arts, Engineering, Math, Physical Science, Geometry, Physics