

Situation

Escape into your dream treehouse with a special feature!

Problem & Career Focus

Amidst the Coronavirus pandemic, you are bored of being inside all the time! Your task is to research and design a dream treehouse that you can "escape" to! Your team of architects, industrial engineers, and electrician are designing unique features of your treehouse with a special feature (think of your favorite hobby or something you like to do) that can be added to the design. Research how engineers and architects can construct in trees! How can you be sure your treehouse is structurally safe? What materials can you use for the design?

Things to Consider

1. What materials will you use to create your dream treehouse?
2. How will you include the special feature within the design of the treehouse?



STEM Ahoy! Treehouse Engineering Design Challenge

Criteria:

Can you create a treehouse AND special feature from household items?!

Materials:

Suggested Items:

- * Empty Boxes
- * Cardboard
- * Paper
- * Straws
- * Tape
- * String
- * Index Cards
- * Empty TP rolls
- * Popsicle Sticks
- * Paint/Crayons/Markers
- * Any household item!
- * Your Imagination!

Constraints:

Special feature must be a part of the treehouse design.
Determine which materials to use.
Work as a family engineering team!
* Create your own criteria!

Investigating Questions:

What is the typical structure of a treehouse?

How can your treehouse structure be unique?

What steps of the engineering design process did you use?

Educational Standards Correlations

Language Arts, Engineering, Science, Physics, Mathematics