

Student Resource:

The Engineering Design Process

1. Define

What is the problem you want to solve? What is your challenge?

2. Develop Solutions

Think about all the possible options you can identify to solve the challenge. Brainstorm as many solutions as possible.

3. Optimize

Compare your solutions, test them, and consider which one will do the best job of solving the problem.



And, throughout...Communicate

At each step in the process talk with your team members so everyone can contribute ideas and be a part of the process. Good communication is very important to the engineering design process.

Your Challenge

1. Define

Your challenge is to develop a hut out of provided materials that will withstand a windstorm.

2. Develop Solutions

As a team, look at the materials you have to work with, and consider lots of solutions to the challenge. Be sure to talk about options and consider the materials.

3. Optimize

Agree on which design solutions are most likely to work, sketch them, and then build your design. You may make changes as necessary... and be sure to test how wind impacts the design.



Desert Island Survival

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Student Resource:

Building Graph

Desert Island Survival

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Student Resource:

Rubric for Deserted Island Challenge

Team Members: _____

3 = We exceeded the expectations

2 = We met the expectations

1 = We did not meet expectations

3 2 1 – Our hut was 36 square inches or smaller

3 2 1 – Our hut is 5 inches or higher

3 2 1 – Our hut has a working door

3 2 1 – Our hut withstand the wind for 10 seconds or more

3 2 1 – We worked well together

Total Score: _____

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