



# Sail Car Challenge



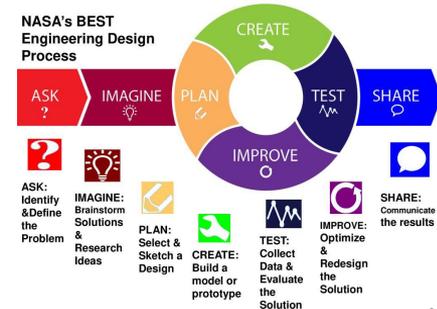
**Concept:** Ways to utilize renewable energy resources to create something valuable.

**Challenge:** Research, design, and test a prototype for a wind powered sail car.

**Objectives:** Explain that wind energy is a renewable and sustainable form of power production. Relate how different shapes and angles affect sail design and performance through the testing and improvement stages of the engineering design process.

**Integration:** Ways in which to use science ideas to to protect the earth's resources and environment (NGSS 5-ESS3-1). Measurement and conversion of seconds per inch into miles per hour.

**Design Process Used:** NASA's Best Design Process





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## Big Takeaways:

- Collaboration led to more innovation in material use and sail design
- Utilization of the research step in the design process more than I thought they would
- Construction of the car body was more cumbersome than I had anticipated

## What I learned:

- Kids are more than ready to take on complex world-changing problems like finding new uses for renewable energy
- Complex mathematical concepts are more easily taught through the guise of a design problem

