**Sail Car Design**

Partners Names \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In this project, you will be an engineer. Engineers solve problems. They have a process that helps them do that.

Your challenge is to design a sail for your car that will capture the wind from a fan on high speed and make it travel as far as possible.

This is their process.

 

**ASK:** What is the problem?

What are you trying to do?

**IMAGINE:** What are some solutions? Brainstorm ideas.

Think about shapes, size, masts and position.

Choose the best one.

**PLAN:** Draw a diagram.

You can use paper, tape, ruler and scissors.

Shape of sail: \_\_\_\_\_\_\_\_\_\_\_

Size: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Height of Mast 1:\_\_\_\_\_\_\_\_\_ If using 2 masts Height of Mast 2:\_\_\_\_\_\_\_\_\_

Draw where you will place the mast.

**CREATE:** Follow your plan and create your sail car. Test it out!



**Predict**: How far do you think your car will go?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test**: How far did it go? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IMPROVE:** What works? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What doesn't? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What could work better? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Modify your design to make it better. Test it out!

**Predict**: How far do you think your car will go?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Test**: How far did it go? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_