GETTING STARTED SAILCAR



WHAT IS IT?

Engineer a vehicle that is propelled by the wind!

Create designs to go the greatest distance, the fastest speed, or carry the most weight.

Race with a tailwind, crosswind, or headwind, learning how sail size, angle, and placement affects the speed of your car in different wind conditions.

HOW DO I DO IT?

Choose how you would like to complete this activity!



Real making with real tools! Use TeacherGeek tools for the initial set up or for older kids to revise their chassis designs.

Go Guide

Start building with the Go Guide! Pick the right version for your grade level.

The optional build video sets you up to make your own unique designs!

Optional Labs

Investigate the science of sail cars. Labs span grades Pre-K to 12+.

Optional lab videos introduce each lab and help you set up!

- Push Pull Lab
- ▶Wind Lab
- ▶ Balanced Forces Lab
- ▶ Forces & Motion Lab
- ▶Inertia Lab
- Atwood's Machine Lab
- ▶Momentum Lab

Challenges

Challenges mimic real sailing scenarios, and scale in difficulty to appropriately challenge all ages.

- ▶ Tailwind Challenge ► Crosswind Challenge
- ▶ Headwind Challenge

Challenge Tips:

- ►The smoother the floor, the faster your sail car will go. Uncarpeted floors are recommended.
- ▶ Engineering is all about arowth! We recommend letting students continuously test their designs before any "final" race or competition takes place.

Optional immersive launch videos set the scenario for the challenge.

This strategy works great

for individuals or groups!

Other Resources

Check out all the other ways TeacherGeek can help you have a successful activity.

- ► Educational Standards (NGSS, CCSS, etc.)
- ▶ STEAM Market-It Challenge
- ► Engineering Notebooks
- Sailing Simulator
- Land Sailing Background

Download documents & videos at teachergeek.com/sailcar