

## Winegard STEM Challenge #4 – Sail Away Into Summer - Due May 18



**Patrick, the Winegard Patriot, wants to compete with mascots from other schools in a sail car competition. He needs you to design and build a sail car that will travel the farthest distance in 30 seconds.**

**We challenge you to.....**

....design and build a sail car that can travel the farthest distance using only the supplies specified below and the force provided by your breath blowing the car across the floor through a straw. Your sail car will be tested on the linoleum floors in our hallways at school. Participants will line up at the start line and be given a signal to blow one breath through the straw into the sail to move the car. The distance will be recorded at the point the car stops. You will be given 3 tests of your car and the best distance is the one that counts.

**You can only use the supplies below** - but you do not have to use every supply.

For sticking: any type of glue or tape

For the Sail: paper, fabric, aluminum foil, foam, straws, sticks, dowels, skewers, pencils

For the Body: Water bottle, Soda Bottle, Toilet-paper tube, Juice box, Disposable cup (paper or plastic), Milk carton, Cardboard, Orange-juice can, Popsicle Sticks

Axes: Straws, Barbeque skewers, Chopsticks, dowels, pencils

Wheels: Bottle caps, Candy mints (with a hole in the middle), CDs, Cardboard circles

Connector for attaching wheels to an axle: Dry sponge, Foam, Clay, Marshmallow

Remember to test your car and make changes that help it travel the farthest distance. It is helpful to use a data table, like the one below, to compare different models and choose the best version. The top car in the school will proceed to a competition with other schools in our area. Please help Bob travel farther than any other mascot in his sail car!

Name of Model	Distance Traveled Trial 1	Distance Traveled Trial 2	Distance Traveled Trial 3

The School Competition will be held on Wednesday, May 18<sup>th</sup> in the front entrance of our school by the Music Room. Students will be called to test by grade level. Times will depend on the number of contestants in each grade level. If you are interested in attending or if you have any questions, please email Jennie Mealor at [jennie.mealor@ocps.net](mailto:jennie.mealor@ocps.net), to obtain more information. Happy Building, Patriots!!