

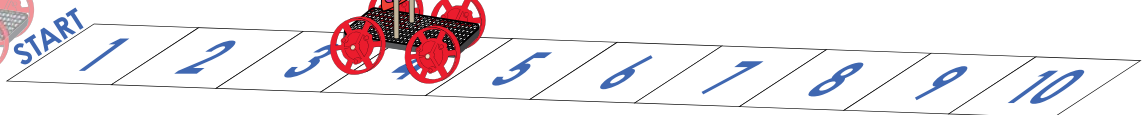
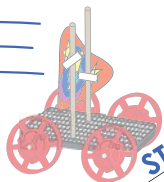
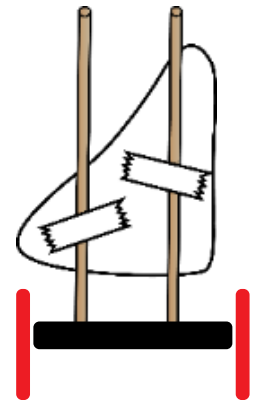
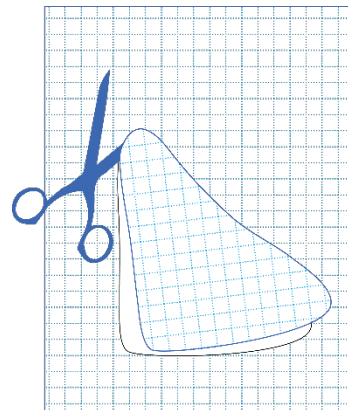
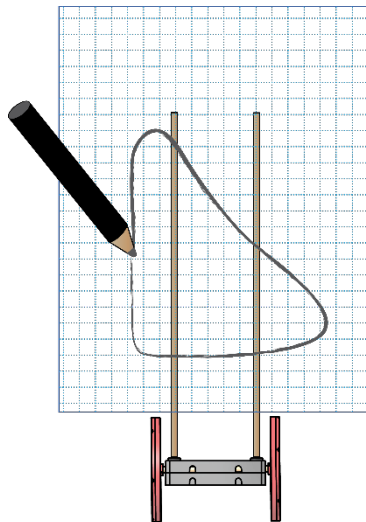
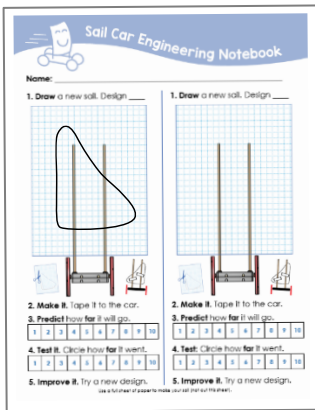


Sail Car Engineering Challenge

The Challenge

Design and Engineer your own sail car.
Test how well it's powered by the wind!

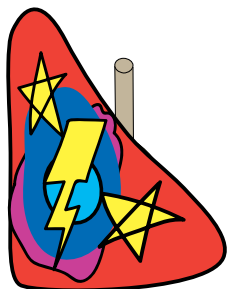
Example Challenge Process:



Circle your answers

Predict how far it will go.

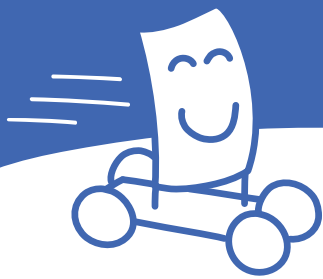
1	2	3	4	5	6	7	8	9	10	?
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Test it. Circle how far it went.

1	2	3	4	5	6	7	8	9	10	?
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Design A

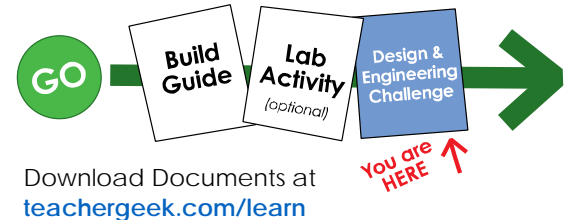


Sail Car Engineering Challenge



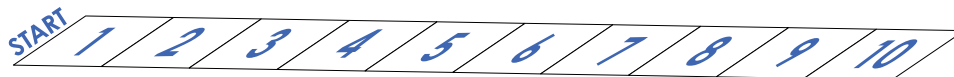
Let's Get Started

Design and Engineer a sail to go the distance or speed down a track. There is no one solution and every design can always be improved.

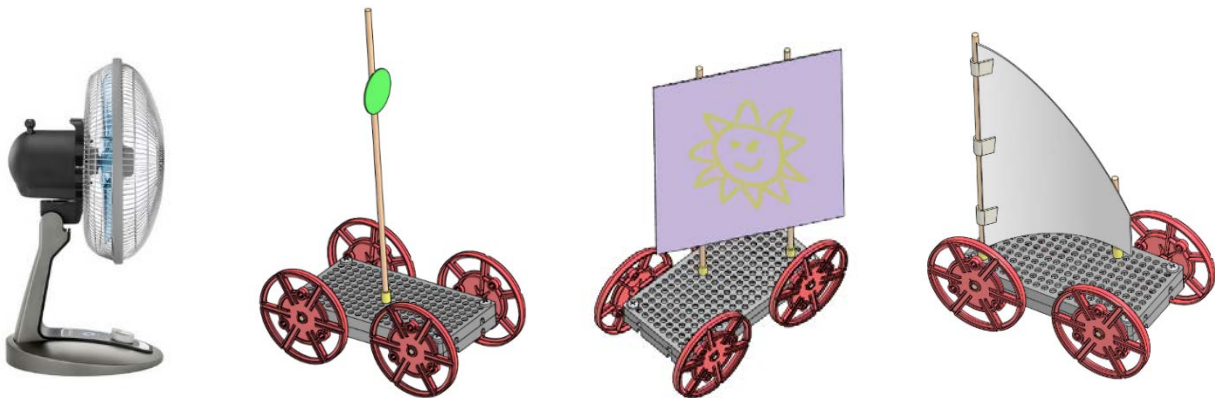


Track Setup

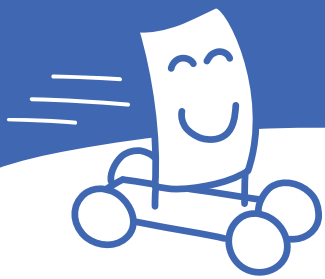
- Find floor space for at least one Sail Car Track. It should be at least 1m by 3m (3ft by 12ft). It's best if the floor for the track is not carpeted.
- Place a desk fan where the track will start.
- Write "START" on a 30cm (12in) section of tape. Place the tape about 30cm (12in) in front of the fan.
- Use labeled sections of tape to mark out every 30cm (12in) in front of the starting line. Label the tape markers, in front of the starting line, from 1 to 10.



Design and draw your own sail shapes using the following Engineering Notebook pages. Draw your sail concept, make a prediction, draw your design on the full-sized graph paper, cut it out and tape to your Sail Car. Then, test and improve your design.



For use with TeacherGeek Sail Car Activity.
Available as [single: SKU 1824-77](#) or [10 pack: SKU 1824-67](#).
Both include extra parts for your own innovative creations!

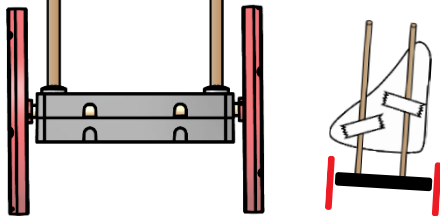
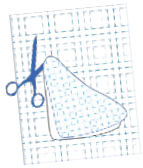
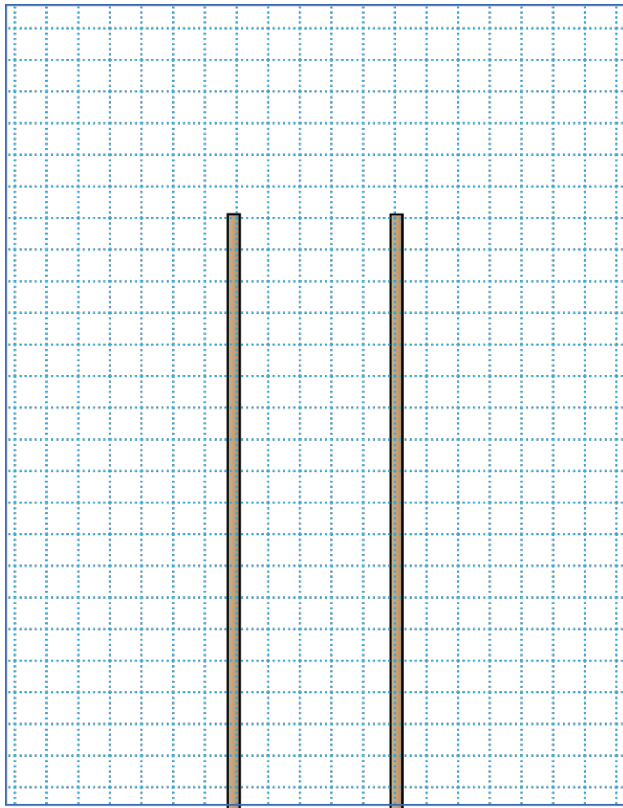


Sail Car Engineering Challenge



Name: _____

1. Draw a new sail. Design _____



2. Make it. Tape it to the car.

3. Predict how far it will go.

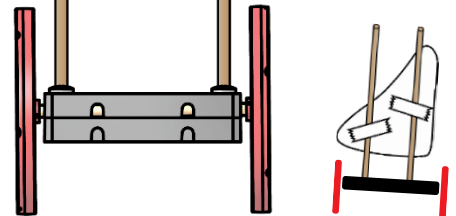
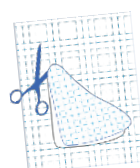
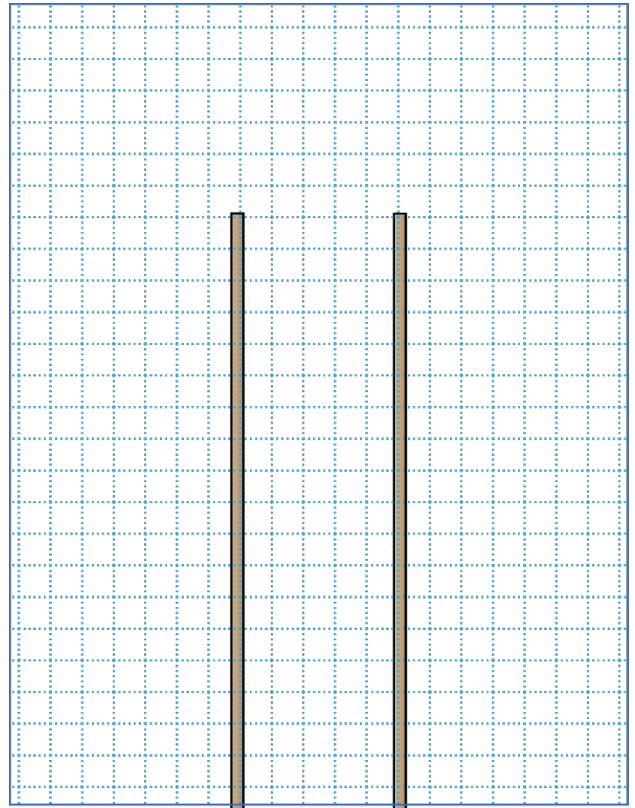
1	2	3	4	5	6	7	8	9	10
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4. Test it. Circle how far it went.

1	2	3	4	5	6	7	8	9	10
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5. Improve it. Try a new design.

1. Draw a new sail. Design _____



2. Make it. Tape it to the car.

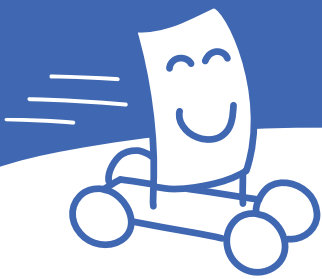
3. Predict how far it will go.

1	2	3	4	5	6	7	8	9	10
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4. Test: Circle how far it went.

1	2	3	4	5	6	7	8	9	10
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5. Improve it. Try a new design.

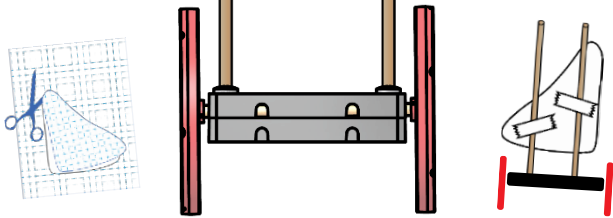
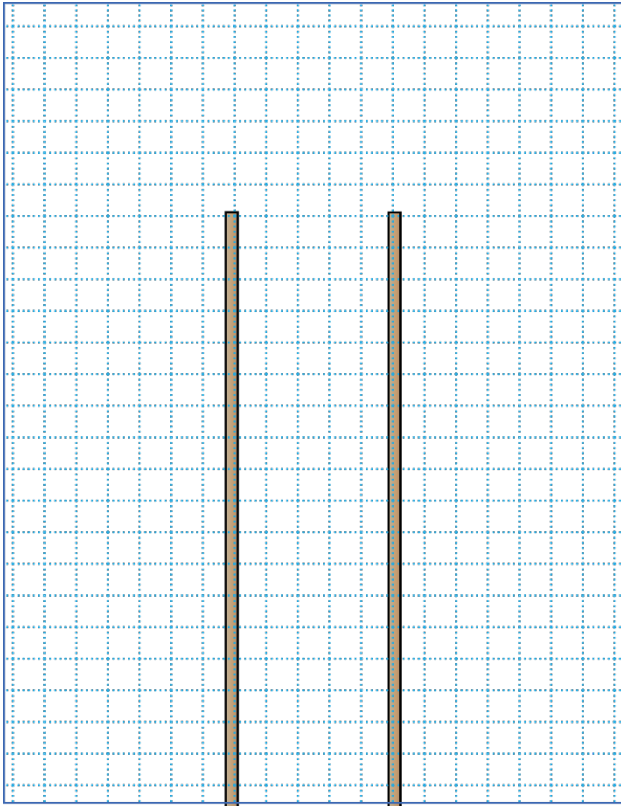


Sail Car Engineering Challenge



Name: _____

1. Draw a new sail. Design _____



2. Make it. Tape it to the car.

3. Predict how fast it will go.

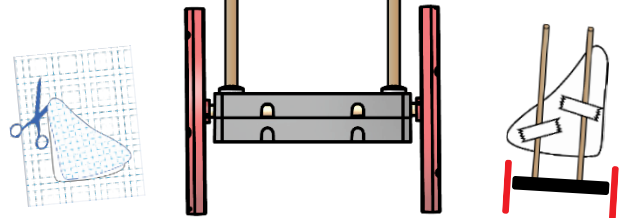
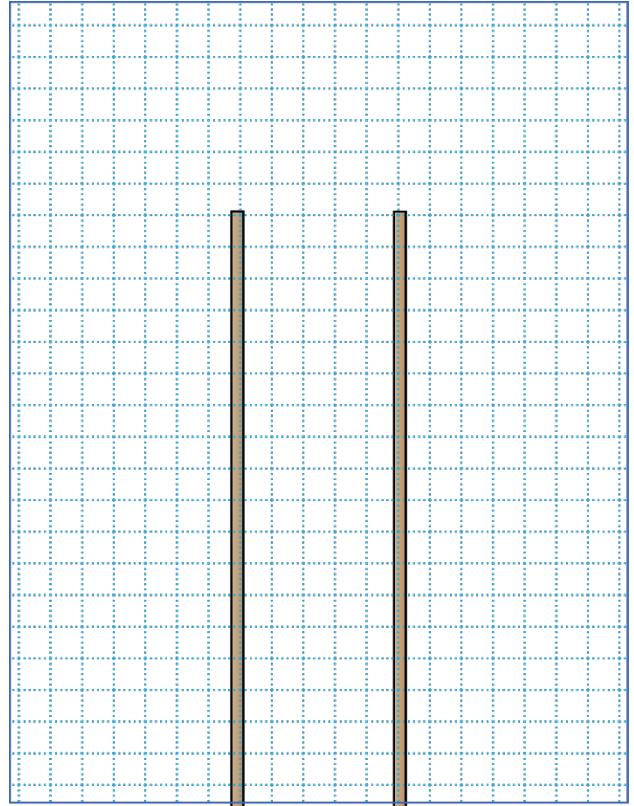


4. Test it. Circle how fast it went.



5. Improve it. Try a new design.

1. Draw a new sail. Design _____



2. Make it. Tape it to the car.

3. Predict how fast it will go.



4. Test: Circle how fast it went.



5. Improve it. Try a new design.

Use a full sheet of paper to make your sail (do not cut this sheet).

Make your sail from this paper.

Make your sail from this paper.