

A challenge card with a decorative border. The border consists of a solid light blue line and a dashed black line, both following a wavy, irregular path. The text is centered within this border.

Challenge Card 1

1. Section off a 3 by 5 foot track to race two vehicles.
2. Time each vehicle from a start to a finish line. Predict which vehicle will win the race.
3. Race the cars.
4. Discuss the outcome; were the predictions correct? If not why? What factors would affect the outcome?

Challenge Card 1

1. Mark off a starting point with tape.
2. Time how long your vehicle will stay in motion.
Start the timer after the car passes the starting point to measure how **long** the vehicle travels.
3. Measure from the starting point how far the the vehicle traveled.

Station 1

1. Go to <http://thinkfun.com/maker-studio/downloads.html>
2. Explore the different vehicle you can 3D print and build
3. Think about which vehicle you would like to print and build.

Station 2

1. Using the iPad have one person in your group film another throwing up a marble.
2. Open the iMovie app and create a new movie.
3. Find your clip and put it in your movie.
4. Click on your clip and click the speed icon.
5. Use the turtle icon to adjust the speed.
6. Click off the clip and press the microphone icon.
7. Have another person in your group press the microphone icon record button and explain what gravity is.



Station 3

1. Go to the 3D printer and fill out the wipe off cards.



Station 4

1. Open the car kit
2. Read the directions
3. Put the car together
4. Take the car apart
5. Put all pieces back in the bag

Station 5

1. Go to **[BBC Friction Simulation](http://bit.ly/station5friction)**
<http://bit.ly/station5friction>