

## Student Worksheet

You just learned how to calculate the average power of a race car speeding up from rest. Let's use this information to calculate the power that you can produce individually. Design an experiment that allows you to collect data and use it to find your average power. The experiment will need to be done where there is a lot of space. Make sure your experiment is safe and allows you to collect good data. Also remember to perform multiple trials. Get approval from your teacher before starting.

**When finished, answer these questions.**

- 1) An Olympic athlete can produce an average power of 2300 Watts. In your experiment, how close did you come to getting the same power? What could you have done differently to increase your power?

- 2) Jeff's car can produce 650,000 Watts of power. If a student can produce 300 W of power on their own, how many students would be required to create the same power as Jeff's car?



- 3) The Kia Stinger (1680 kg) can go from 0 to 60 mph (27 m/s) in 4.7 s. How much power does the car produce to make this happen?