

DATASHEET

16**STUDENT WORKSHEET*****Built for Speed***

Imagine that you are an engineer at GoCarCo, a toy-vehicle company. GoCarCo is trying to beat the competition by building a new toy vehicle. Several new designs are being tested. Your boss has given you one of the new toy vehicles and instructed you to measure its speed as accurately as possible with the tools you have. Other engineers (your classmates) are testing the other designs. Your results could decide the fate of the company!

MATERIALS

- toy vehicle
- meterstick
- masking tape
- stopwatch

Procedure

1. How will you accomplish your goal? Write a paragraph to describe your goal and your procedure for this experiment. Be sure that your procedure includes several trials.

2. Show your plan to your boss (teacher). Get his or her approval to carry out your procedure.
3. Perform your stated procedure. Create a data table in the space below and record all of your data. Be sure to express all data in the correct units.

Built for Speed, continued

Analysis

4. What was the average speed of your vehicle? How does your result compare with the results of the other engineers?

5. Compare your technique for determining the speed of your vehicle with the techniques of the other engineers. Which technique do you think is the most effective?

6. Was your toy vehicle the fastest? Explain why or why not.

Going Further

Think of several conditions that could affect your vehicle's speed. Design an experiment to test your vehicle under one of those conditions. Write a paragraph to explain your procedure. Be sure to include an explanation of how that condition changes your vehicle's speed.
