

# CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

Name(s)

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**Project Number** 

**J1799** 

# **Project Title**

# How Do Underinflated Tires Affect the Difficulty of Riding a Bike?

## **Abstract**

# **Objectives/Goals**

My objective is to use a Newtons spring scale to measure how tire pressure affects the force required to pull a bike in a straight line.

#### Methods/Materials

This science project requires a bike, a volunteer with a bike and steer in a straight line, a Newtons spring scale to measure force, and a person to pull bike in a straight line, 3 large zip tires to attach the Newtons spring scale to bike and a graph to map results. My method consisted of testing the bike being pulled at 40,30,20, and 10 psi.

## **Results**

My results showed that the lower the tire pressure the more force needed to pull the bike in a straight line. The higher the tire pressure the less force needed to pull the bike in a straight line.

## **Conclusions/Discussion**

My hypothesis was correct. The tire pressure does make difference in the amount of force needed to pull a bike in a straight line.

# **Summary Statement**

Tire pressure will affect the degree of difficulty in riding a bike.

## Help Received

Uncle taught me about the importance of psi. My family participated in experiment.