

# CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

Brian M. Luong

**Project Number** 

**J1916** 

**Project Title** 

Which Spider Web Is the Strongest?

## **Abstract**

## **Objectives/Goals**

The experimenter#s objective is to find which spider web is the strongest out of the three different spider web that is being tested by an average of 100 grams.

#### Methods/Materials

A method to complete this experiment is by using toothpicks to create the shape of the spider web and using superglue to apply it to the tip of each toothpick so that the thread sticks to it. The materials that were used are toothpicks, super glue, a roll of thread, hot glue gun, four 2 ft. by 2ft. wood frame, a pencil, a black marker, twelve 4in. cylinder wood pieces, twelve 2 in. wood pieces and twelve metal hooks.

## **Results**

The result was that the Orb Web is the strongest spider web by an average of around 100 grams. Therefore, my hypothesis was correct that the Orb Web was the strongest. However, the average was different since the Orb Web was stronger by an average of 80 grams, compared to the Ladder Web and 120 grams compared to the Gum-Footed Web.

#### **Conclusions/Discussion**

In the end, the Orb Web was proven to be the strongest. The second strongest out of the three is the Ladder Web and the weakest is the Gum-Footed Web. The reason that the Orb Web was probably the strongest because it#s thread were close to each other so it worked together to support the weight, while the Gum-Footed Web didn#t have much support.

## **Summary Statement**

My project is about finding out which spider web is the strongest out of the three tested spider webs and its average strength.

## Help Received

My father helped drill the wood frame together.