

# CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s)

**Brean E. Prefontaine** 

**Project Number** 

**S0421** 

### **Project Title**

Does Line of Sight and the Ability to See Affect the Dizziness Felt by a Figure Skater After He or She Performs a Spin?

### Abstract

# Objectives/Goals

My project was to determine if a figure skater experienced more dizziness after performing a spin due to vision (open or closed eyes) and the line of sight (head position in the different spins). I believe that spins performed with the eyes open and a normal, or level, head position will produce less dizziness in the figure skater.

#### Methods/Materials

Twenty-five figure skaters, both male and female, at or above the Juvenile level were asked to participate. The level requirement was to ensure that each skater could easily perform all of the spins. Each skater performed six different spins: three different positions where performed twice (once with his/her eyes open and once with his/her eyes closed). The three spins were the scratch (or upright) spin, the sit spin, and the lay back spin. The three different spin positions provided different head positions that allowed the skater to experience a different line of sight with each spin. The skater responded after every spin with a number of how much dizziness was felt that correlated with my 1 to 5 scale.

#### **Results**

The spins done with eyes open proved to provide the least amount of dizziness. Also, the "easier" spin, or the spin with the normal head position, proved to have the least amount of dizziness for the "line of sight test."

#### **Conclusions/Discussion**

I have concluded that a figure skater will experience less dizziness if a spin is performed with his/her eyes open and with the head in a "normal" position. This has helped me with coaching younger children on how to spin and helps me personally when I am learning a new, difficult spin.

## **Summary Statement**

I set out to determine if vision and the line of sight effects how much dizziness a figure skater feels while spinning by surveying thirty skaters with a simple test consisting of six spins.

#### Help Received

The thirty skaters that I tested assisted by volunteering to complete the test and sharing their personal results.