

## CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

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**Project Number** 

# J1110

### **Project Title**

# The Relation between Physical Activity and Overall Fitness of Japanese and American Students

#### Abstract

**Objectives/Goals** The goal of my project is to determine how American students score on Japanese physical fitness exam. **Methods/Materials** 

I am testing 42 American subjects, ages 11-12, on height, weight, body fat, body mass index (BMI), grip power, cross-armed sit-ups, toe-touch, side-step, 50-meter run, and standing long jump. I am also surveying the American subjects and 28 Japanese subjects about their daily health habits, such as eating, sleeping, and exercise.

#### Results

For body fitness tests, the body fat had the largest gap. Females: The Japanese had 18.6%. The Americans had 26.98%. Males: The Japanese had 17.4%, and the Americans had 27.58%. For running tests, there was the 50-meter run. Females: The Japanese had 9.12 sec. The Americans had 9.5452 sec. Males: The Japanese had 8.69 sec. The Americans had 9.5453 sec. For jumping tests, the side-step had the largest gap. Females: The Americans had 33.66 side-steps. The Japanese had 42.2 side-steps. Males: The Americans had 33.941 side-steps. The Japanese had 46.34 side-steps. For flexibility tests, there was the toe-touch. Females: The Americans had 34.15 cm. The Japanese had 36.72 cm. Males: The Americans had 32.47 cm. The Japanese had 36.72 cm. For strength tests, the grip power had the largest gap. Females: The Americans had 13.97 kg. The Japanese had 20.88 kg. Males: The Americans had 12.529 kg. The Japanese had 22.95 kg.

#### Conclusions/Discussion

The Japanese did better on most of the tests. They did better than even the American athletes. I found out who the athletes were from my surveys. I found that the physical activity does affect overall fitness. The Japanese exercise more on a daily basis, so they have less obesity in their population. My main message is that the American students need to exercise more and eat healthier to prevent childhood obesity.

#### **Summary Statement**

My project is about how the American students will score on Japanese fitness exams and how physical activity would affect overall fitness and obesity.

#### **Help Received**