### Project Title

**Amount of Electricity Produced by the Gastrocnemius Muscle on Certain Surfaces**

### Preferred Category

15 - Physiology

### Abstract

(Include Objective, Methods, Results, Conclusion. See samples on page 14.)

**Problem Statement:** On which surface will the gastrocnemius muscle produce the most electricity?

**Hypothesis:** The gastrocnemius muscle will produce the most electricity on the concrete surface.

**Materials:** All three surfaces: sand, concrete, and gym mat were provided by Phil Requejo. The electrodes, video monitor, volleyball net, and camera were also provided by Phil Requejo.

**Results:** The gastrocnemius muscle produced electricity on all three surfaces, but it produced the most on the gym mat surface.

**Conclusions:** The collected data did not seem to support the hypothesis that the gastrocnemius muscle would produce the most electricity while jumping on the concrete surface. The mat surface produced the most electricity and then followed by the sand surface. Jumping on the concrete produced the least. In conclusion, concrete is the easiest to jump on.

### Summary Statement

(In one sentence, state what your project is about.)

Amount of Electricity Produced by the Gastrocnemius Muscle on Certain Surfaces.

### Help Received in Doing Project

(e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.

Used lab equipment at USC under the direction of Philip Requejo PHD student.