



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Rebecca J. Olson	Project Number J1528
Project Title Properties of the Pendulum	
Abstract	
Objectives/Goals My objective was to find which variable - weight, length, or amplitude - would have the greatest effect on the period of a pendulum. I believed that weight, length, and amplitude would each have an equal effect on the period.	
Methods/Materials I constructed a pendulum to test different weights, lengths, and amplitudes to see which would have the greatest effect on the period of the pendulum. I then tested three different lengths, 30 cm, 60 cm, and 90 cm; three different amplitudes, 20°, 45°, and 70°; and three different weights, 1-1/4 oz, 2-1/2 oz, and 3-3/4 oz. I timed each of these variables 10 times for one period of motion.	
Results I found that length made the most significant difference in time. Weight and amplitude made little or no difference.	
Conclusions/Discussion My hypothesis was not supported. I found that length made the most significant difference in time.	
Summary Statement To determine what affects the period of a pendulum -- weight, length, or amplitude.	
Help Received Father used power tools to cut pendulum materials to size and helped with the assembly of pendulum.	