



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

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| Name(s) Alexandra R. Nordyke | Project Number J2416 |
| Project Title The Effect of Music Tempo on Spider Webs | |
| Abstract Objectives/Goals This study examined whether or not the tempo of music would affect spiders and the way that they would spin webs. Methods/Materials Four spiders were placed into two terrariums for 24 hours and allowed to spin webs while prerecorded music was played at varying tempos. Including the baseline measurement without music, the experiment was repeated 7 times using tempos of 40, 80, 160, and 240 beats per minute. Results The average baseline was 93 degrees while the average angles with the music playing varied from 93-117 degrees. The variations in the angles were very high, which might have made it hard to determine if there is a relationship between the angles of the webs and the tempos. Conclusions/Discussion Based on photographs of each web (4 webs in each repetition) a random selection of angles were measured for each web. The results suggested that the spiders were more affected by music at 80 beats per minute. However, the overall results showed that there was very little significant impact to the webs. | |
| Summary Statement This experiment was to see how spiders were affected by different speeds of tempo. | |
| Help Received Father helped to collect spiders. | |