



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.) Allison Mosher; Tamara Silva	Science Fair Use Only S1515
Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) Backpacks and Our Backs	Division <u>S</u> Junior (6-8) <u>S</u> Senior (9-12)
Preferred Category (See page 5 for descriptions.) 14 - Physics & Astronomy	
Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.) Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.	
<p>Hypothesis: Our hypothesis is that the heavy weight of the books and binders students have to carry each day in their backpacks contribute to serious amounts of backpain.</p> <p>Materials and Methods: 100 middle and highschool students were surveyed on the effects on backpacks on their backs. The survey included questions about their personal weight, type of backpack they use, other physical activity they participate in. The surveyed students backpack was weighed both during their lunch hour and after school to determine if they were carrying over the recommended 10% of their body weight.</p> <p>Results: A great percent of the surveyed students are in fact carrying over the recommended weight of their backpacks. Highschool students backpacks are 12% heavier than middle school students.</p> <p>Discussion: Our results supported our hypothesis. Students carry more weight than they should and as a result are experiencing back pain at a young age. Not many students have been surveyed on this subject so its a new point of view.</p>	
Summary Statement (In one sentence, state what your project is about.) Our project is about the increasingly heavy weight of backpacks having effects on a students back pain at an early age (between 10 and 18 yrs.)	
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. Teacher advice, chiropractic interviews (research)	