### Project Title
Backpacks and Our Backs

### Preferred Category
14 - Physics & Astronomy

### 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 back pain.

### Materials and Methods:
100 middle and high school students were surveyed on the effects on backpacks on their backs. The survey included questions about their personal weight, type of backpack they use, and 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.

### Results:
A great percent of the surveyed students are in fact carrying over the recommended weight of their backpacks. High school students' backpacks are 12% heavier than middle school students.

### 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 it's a new point of view.

### Summary Statement
Our project is about the increasingly heavy weight of backpacks having effects on a student's back pain at an early age (between 10 and 18 yrs.)

### Help Received in Doing Project
Teacher advice, chiropractic interviews (research)