## The Effect of Conversation on Plant Growth

Introduction: In my project, I measured the the effect of conversation on the growth of plants. Previous research has shown that playing music by plants has cause them to grow more than plants without music exposure. Based on these findings, I hypothesize that the plant I talk to will grow more than the plant I don't talk to.

Materials and Methods: For this project, I used my voice, a ruler to measure the height of the plant, two sunflower seedlings, and a separate rooms for each plant. Each room had the same sunlight exposure and temperature. I talked to one sunflower seedling for 15 minutes every day for one month, at $3: 45 \mathrm{pm}$, after coming home from school. The other plant was watered at the same time as the first plant (8:00 am and 4:00 pm) but was not talked to.

Results: At the one week mark, both plants were the same height (fig. 1). By the second week, however, the plant I talked to had grown to be two inches tall, while the plant I did not talk to was only one and a half inches tall (fig 1, 2.). By the third week, the talked-to plant was 3.25 inches and the not-talked-to plant was 1.75 inches (fig 1, 2.). At the final measuring (week four) the plant I talked to was a total of 6 inches tall, and the not talked to plant was 2.5 inches tall (fig. 1,2).

Discussion: Based on the data collected, there appears to be a connection between conversation and plant growth. The plant I talked to steadily outgrew the plant I did not talk to. This suggest that something about talking to a plant - either the simple nature of the sound of talking, or the pitch of the talking - positively affects growth. Another explanation for this result could be that the talked-to plant was exposed to more carbon dioxide from my exhalations.

Plant Talked To
Plant without Talking

Figure 1
10.0
7.5

Height
(inches) 5.0


| Time (weeks) | Talked to Plant Height <br> (inches) | Not Talked To Plant <br> Height (inches) |
| :--- | :--- | :--- |
| 1 | 1.0 | 1.0 |
| 2 | 2.0 | 1.5 |
| 3 | 3.25 | 1.75 |
| 4 | 6.00 | 2.5 |

