

# CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

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**Project Number** 

**J1720** 

## **Project Title**

# How Does the Size of a Pumpkin Affect the Number of Seeds It Produces?

# **Objectives/Goals**

### **Abstract**

For my project, I decided to see whether or not the size of a pumpkin affected how many seeds it produces. I hypothesized that the large pumpkins would have fewer seeds. The pumpkins would have fewer seeds because when the pumpkin's size is greater, the seeds will be larger and there will not be a lot of space for many pumpkin seeds.

#### Methods/Materials

To compare their sizes, I weighed and measured five large, five medium and five small pumpkins. I cut the pumpkins and washed the seeds using a colander. I counted the seeds and recorded the results. In order to find the density of the pumpkins I had to find their volume and mass. These were determined using mathematical formulas. I also found the area of the pumpkins. A postal scale was used to weigh the pumpkins.

#### Results

The larger pumpkins had more seeds than the smaller pumpkins. The size of the seeds from the larger pumpkins were also larger than the seeds from the smaller pumpkins.

#### **Conclusions/Discussion**

To conclude, my hypothesis was incorrect. I hypothesized that there would be fewer pumpkin seeds from the large pumpkins, but there are many more pumpkin seeds from the large pumpkins. This study suggests that if you want to maximize the number of seeds you get out of a pumpkin it would be better to buy a larger size.

## **Summary Statement**

How the size of a pumpkin affects the number of seeds it contains.

## **Help Received**

Mr. Yutan helped me find the formulas for volume, density, and mass in order to find the size of the pumpkins.