



**CALIFORNIA STATE SCIENCE FAIR  
2017 PROJECT SUMMARY**

<b>Name(s)</b> <b>Sofia Perez; Janet Reyes-Zamora</b>	<b>Project Number</b> <b>S1911</b>
<b>Project Title</b> <b>The Effects of Air Pressure on Pisum sativum Germination</b>	
<b>Abstract</b> <b>Objectives/Goals</b> Our objective was to investigate how changes in air pressure might affect seed germination in pea plants. <b>Methods/Materials</b> potting soil, spray water bottle, pea seeds ( <i>Pisum sativum</i> ), small containers for planting seeds, air compressor, Culligan water filtration chamber, Vacuum chamber and motor, boxes for normal atmospheric pressure, and a ruler. <b>Results</b> Pea seeds were grown under three different types of air pressure: high pressure (50psi), low pressure (-12.3psi), and atmospheric pressure (14.7psi). Seeds germinated under these conditions for a week. Sprout lengths were measured to determine the effects of the different air pressure types. Based on our data, increased air pressure had a negative effect on seed germination. <b>Conclusions/Discussion</b> The results in this experiment showed that the seeds that were germinated under normal atmospheric and decreased air pressure had longer sprout lengths than seeds that were germinated under increased air pressure. Seeds germinated under increased pressure had shorter sprout lengths.	
<b>Summary Statement</b> We determined that increased air pressure had a negative effect on seed germination.	
<b>Help Received</b> Our science teacher Mrs. Manabe	