

CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Project Number Name(s) Samuel J. Kennedy **J1914 Project Title Effects of Soil Sand Content on Chlorophyll Pigmentation in Pea Plants** Abstract **Objectives/Goals** My objective was to learn whether the amount of sand in a soil affects the amount of chlorophyll in a plant growing in it. **Methods/Materials** I mixed together five different mixtures of soil and sand and then planted the plants in these. When the plants had matured sufficiently, I used their leaves to create a pigment extract, which I then tested and drew conclusions from. Results In my results the amount of chlorophyll was highest in Treatment 1, second-highest in Treatment 2, third-highest in Treatment 4, fourth-highest in Treatment 3, and fifth-highest in Treatment 5. Conclusions/Discussion My results showed that in all but one treatment, there was less chlorophyll in the sandier soil than in the normal soil. This means that soil type does in fact have an effect on how productive a plant is. **Summary Statement** My project is about soil types and their effect on plant pigmentation. **Help Received** Used lab equipment at Fresno State University under the supervision of Dr. James Kennedy.