



**CALIFORNIA STATE SCIENCE FAIR  
2012 PROJECT SUMMARY**

<b>Name(s)</b> <b>Cameron M. Rossi</b>	<b>Project Number</b> <b>J2212</b>
<b>Project Title</b> <b>Earthworms: What Soil Do They Dig?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My project was to determine which soil type earthworms like best. By understanding the relationship between earthworms and soil, we can improve the growth of plants, flowers, and the overall environment. Gravel, sand, dead leaves, and potting soil were chosen for the experiment because they have different characteristics which will give a good variety. I believe that the earthworms will like dead leaves the best because it is organic matter which is a food supply. <b>Methods/Materials</b> Earthworms were tested one at a time in a box to see if they preferred gravel, sand, dead leaves, or potting soil. Each soil type was placed in one corner of the box and none of the soils touched. The control for the experiment was that four earthworms were placed one at a time in the center of the box. Variables that were added were time in the box, amount of earthworms placed at one time, location placed, and coffee grounds (organic matter) added to soil. <b>Results</b> Final results are four earthworms were tested five times each for a total of 20 tests. Gravel was chosen 12 times and dead leaves were chosen 8 times. 60% of the time gravel was chosen and 40% of the time dead leaves were chosen. Potting soil and sand were never chosen which makes them both 0%. <b>Conclusions/Discussion</b> My conclusion is that the earthworms chose the soil that would benefit them and our environment the most. The gravel was loose, remained moist, and was dark in color which is important characteristics for the earthworm's survival. The earthworms also chose dead leaves which was loose, remained moist, and is organic matter which is necessary to them. They did not choose sand which is dense, light in color, and dried quickly. They also did not choose the potting soil which contained chemical fertilizers that can harm earthworms	
<b>Summary Statement</b> My project is to determine which soil type earthworms like best in order to better understand the relationship between earthworms and our environment.	
<b>Help Received</b> Mom helped type the report and dad helped build the box for the experiment.	