



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Stacy H. Perez	Project Number J1620
Project Title The Effect of Temperature of Water that is Given to Radishes	
Abstract Objectives/Goals The objective is to find how the temperature of the water that is given to radishes affects their growth. Methods/Materials Three identicle plastic pots and filled with MRicle Growth Soil. Second, i planted one radish seed 13mm deep in each pot.I labeled each plant either A, b, or C I watered each plant with 125mL of water that was 21°C or room temperature. i watered each plant like this every day until the radishes were 50mm high. When Plant A was 50mm tall,I watered it with 125ml of water that was 2°C. When Plant B is 50mm tall, I watered it with 125mL of water that was 82°C. When plant C was 50mm tall, i watered it with 125mL of water that was 21°C. I repeat this process every other day for 14 days. Results At the end of the experiment, Plant C was the healthiest. It grew up to 132mm and had a taproot that was 20mm wide. Plant C had very healthy and full leaves, with no browning. Plant B was the second tallest radish. It was 120mm tall and its taproot was 6mm wide. Plant B was not as healthy as Plant C. One of Plant B's leaf's edges was dead. Plant B was the second tallest plant, but it had the least healthy leaves. Most of its leaves were a yellow-green color. Plant A was the smallest. It was only 107mm tall but its taproot was 7mm wide. Its leaves were all two colors: an unhealthy lime green color and the healthy green color that Plant C had. Conclusions/Discussion The hypothesis was disproved. The radish that was given water that was 21°C grew the best but the radishes that were given water that was at an extreme temperature did not die. Instead they were very small and unhealthy. If this experiment was repeated a number of things should be done differently, First, the experimenter should grow at least six radishes instead of three. Then the results would have been more accurate. The way that the radishes are measured should also be changed. The original experimenter measured the radishes' height by measuring the tallest leaf with the metric side of a ruler, but by doing that the radishes appeared to grow backwards on several occasions when the radish leaves would point down instead of up at an angle. I would have also liked to repeat this experiment with the discussed corrections.	
Summary Statement This project is about the effect of the temperature of water that is given to radishes and the plants ability to perform photosynthesis.	
Help Received My parents purchased the supplies. Everything else was performed with absolutely no outside help.	