



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Zoe E. Dubrow	Project Number J1905
Project Title Determining Toads' Dominant Sense for Locating Food	
Abstract Objectives/Goals The purpose of this project is to determine whether oriental fire bellied toads' dominant sense for locating food is sight or smell. An attempt will also be made to figure out if the toads can use memory or visual clues to assist them in locating food. Methods/Materials In this project there are six sets of experiments in which oriental fire bellied toads will be tested. The experiments that will be done are randomized scent, randomized sight, memory, memory negative control, randomized visual clues, and visual clues negative control. Each of these experiments will test one of the toads' senses. Precautions will be made so that the only way that fire bellied toads will be able to locate the food in a particular experiment is by the sense that is being tested. At the end of each experiment the toads accuracy and time taken to find the dish with the food will be recorded. Results The toads found the food 40 times faster in sight experiments than in scent experiments. The toads located the food 11 times faster in sight experiments than memory experiments. They also found the food 14 times faster in sight experiments than they did in visual clues experiments. In Sight experiments the toads lunged for the food as soon as they were put into the plastic container. Conclusions/Discussion Fire Bellied toads main method of locating food is sight. Toads can remember the location of a source of food for more than two days. The primitive toads are capable of using both memory and visual clues to assist them in locating food. The toad with the best memory also took the longest time to find the correct dish in the smell experiments. Almost half the time this toad went to an incorrect dish which turned out to be where the food had been in the last experiment. This tells me that her memory overwhelmed her smelling instincts.	
Summary Statement The objective of this project is to determine fire bellied toads' dominant sense for locating food.	
Help Received My dad helped me take pictures while I made sure that the toad did not hop away.	