



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

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Project Title Does Pollution Positively or Negatively Affect the Health of Purple Sea Urchins (<i>Strongylocentrotus purpuratus</i>)?	
Abstract Objectives/Goals The purpose of this experiment was to determine whether purple sea urchins are healthier in a more polluted or in a less polluted environment. It was hypothesized that pollution positively affects the health of purple sea urchins. Methods/Materials In order to test this, two colonies of purple sea urchins were randomly selected: the first colony was located near a storm drain, and the second colony was located far away from any storm drains. Sea urchins from each of the colonies were tested for population number, individual size, and time it took and individual urchin to right itself from an upside down position. Results It was determined that purple sea urchins living in a more polluted habitat were fewer in number, smaller, and took longer to flip over than those in a cleaner habitat. Conclusions/Discussion The hypothesis was proven false; in conclusion, purple sea urchins are healthier in a less polluted environment where their food sources can thrive.	
Summary Statement The correlation between the amount of pollution in the habitats of purple sea urchins and the health of the urchins in each habitat was tested.	
Help Received Mother helped test urchins	