



**CALIFORNIA STATE SCIENCE FAIR  
2003 PROJECT SUMMARY**

<b>Name(s)</b> <b>Erica B. Penunuri</b>	<b>Project Number</b> <b>J0615</b>
<b>Project Title</b> <b>Hurricanes</b>	
<b>Abstract</b> <b>Objectives/Goals</b> How do Hurricanes occur? According to my research I think hurricanes occur over warm waters and when the warm air rises. Cool air will come in and take its place. The rising, spinning air will start spinning counter clockwise and form cylindrical walls of clouds. Water vapor fuels the developing hurricane. As the vapor condenses into clouds heat is released, which causes the air to become less dense. The surrounding air moves into the cyclone faster and faster and repeats the cycle over and over again getting stronger.	
<b>Methods/Materials</b> PROCEDURES: A: Construct a hurricane machine using the materials listed in science project binder. B: Pour some water into the pot. C. Rub liquid soap in the glass bowl (to prevent fogging). D. Fill each of two plastic containers with ice cubes. E. Then turn the burner in between 2-4 F. Turn the lamp on for better viewing G. After filling air compressor with air, open compressor valve slowly to about one PSI.	
<b>Results</b> The rising steaming air from the pot represented the warm air rising from the ocean. also the air compressor blew cool air through the 2 tubes acting like the 2 air currents colliding into each other. The 2 boxes with ice cubes were to produce coldness in the air. The copper tubing conducts the cold air. The soap was to prevent the bowl from fogging up because of surface tension. I found out putting a lamp in front and black paper behind the bowl made it easier to see the hurricane instead of the black light. The grid stationed the bowl.	
<b>Conclusions/Discussion</b> Hurricanes will occur over tropical waters. When the warm air rises and the two air currents collision and then turns counter clockwise(N. Hemisphere only). The water vapor condenses and releases heat which makes it less dense this cycle repeats over and over again. I was able to reproduce a hurricane under laboratory conditions and perform experiments. In doing so I found out when the wind pressure increased the height and width decreased in both room and ice temperature conditions. The ice temperature condition had a	
<b>Summary Statement</b> This project is about trying to reproduce a hurricane and study its development and characteristics.	
<b>Help Received</b> My dad helped me construct the hurricane machine. He advised on what materials to use and how to make it safe.	