

## Bluewater Bay Elementary Fifth Grade

Bluewater Elementary's fifth grade classes were able to use the *Making a Splash* award to purchase materials for our ongoing study of the water quality in Choctawhatchee Bay. Although we were not able to make as many visits to the bayou as we had anticipated, the students are now knowledgeable in using a salinity refractometer, a dissolved oxygen meter, and measuring the pH, nitrate, phosphate, and coliform bacteria levels of the local waters. All of these materials will be used in the coming years to teach repeated observation skills as well as increase student interest in environmental studies.

The *Thinking Like a Scientist* grant allowed us to purchase a significant amount of high-quality weather instruments. The students used the barometer, thermometer, rain gauge, hygrometer and weather tracker to collect data over a period of time. The quantitative data was graphed and analyzed. Most recently small groups of students have been using the Kestrel 4000 Pocket Weather Tracker to compare weather data collected by the less sophisticated instruments for accuracy. Next year we plan to start our repeated weather observation in September and run the collection through June. This will provide the students will additional practice in repeated observations and the analysis of longitudinal data.

Finally, the award we received for the *Looking Deeper* grant allowed us to purchase six student microscopes. As the year comes to a close, we will be using the microscopes to view water from our various classroom aquariums. The students will have their first exposure to the microscopic world of science. Next year we will add microscope use to our *Making a Splash* project and use the phytoplankton net to gather and investigate the health of our local waters.



**Ulaunda Nunn**  
**Robotics Coach**  
**Bob Sikes Elementary School**

The money I obtained from you assisted in buying two laptops, two laptop bags with wheels, and Microsoft Office Software for the two computers. (See attached for pictures.) These items were used by the Bob Sikes Robotic Teams in the First LEGO League Challenge for the 2012-2013 school year.

This year's theme was "Senior Solutions". Students had to create a project and robot to meet the challenge. Our project this year was a website that assisted seniors, and others, in finding volunteer jobs within the Okaloosa County School District. The district worked with us to develop this concept idea. Once the idea was developed, the students had to create a project to present their idea. This year the students chose to blend the real project with scenarios within a skit. PowerPoint was used to create a project board to show the judges their ideas, mentors, and research (See attached picture).



The laptops were also used in programming the robots with NXT software (Provided with the robots). Once the team receives the challenge board, the students construct the objects for the obstacle course, and build a robot to maneuver on this course. The computers are used in programming the robots to complete these tasks.

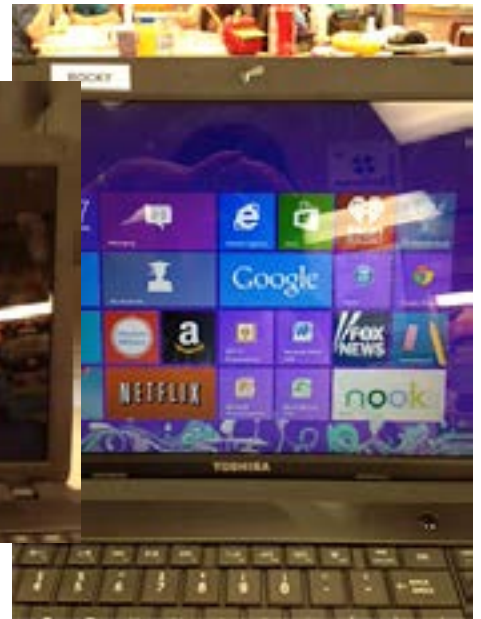
Although we ended up blending the two teams into one to save time in programming and project ideas, we were very proud of the team's accomplishments. We knew our limits and their limits and the combining of the teams made us more successful. This year our team, the Rockin' Robots, won the following awards; Project Design at Qualifying 1, Team Spirit, Core Values, and a bid for Regional at Qualifying 2, Robot Design and Tournament Championship with a bid for State at Regional. We attended FLL State on March 3rd in Orlando, Florida. Although we did not win an award, we walked away with a wealth of knowledge and connections to help us through next year. (See attached for pictures.)



All of this would not have been possible without your help. Thank you very much.

We also received \$250.00 from Re/Max Reality of Crestview. With that money we were able to build two regulation style tables and purchase adjustable saw horses to hold them with. This was also aided us in practicing with the robots.





**Ms Emily Hamilton and Ms Sally King**  
**Sixth Grade Students**  
**Meigs Middle School**

Sixth grade students were challenged to think like “engineers.” Students worked in groups with two or three other students and were given the task to build the longest free standing structure using as many pieces of their complete set “Fiddlestix.” Students had to work together cooperatively as they were given the following directions: 1) only 15 minutes given to each group and 2) the longest free standing structure with the fewest points touching the ground. If time permits in the future, students will be challenged to create the tallest free standing structure; as students thoroughly enjoyed this activity.



The second part of our grant dealt with designing and flying straw rockets. Students (in the two pictures to the right) were challenged to design a rocket with 2 to 4 wings made out of index cards. After each student designed wings they attached the wings to a reinforced plastic straw with a nose cap on one end. Each group of students launched their rockets changing the angle and amount of force applied to each rocket. The goal for the students was to get the rockets to land in the center of a hula-hoop that was approximately 20 feet away.

Eighth grade students created Rube Goldberg machines using the Fiddlestix and various materials and supplies. The students were given a rubric with requirements for the machine. Students worked in groups to construct an apparatus that used simple machines to complete a simple task. These

included getting a tissue from a box, watering a plant, ringing a bell, sharpening a pencil, and popping a balloon. This provided hands on and critical thinking skills. This is providing a cooperative learning environment and students take ownership of the process.



**Ms. Antoinette Robinson**  
**Max Bruner Jr. Middle School**

The Students learned about how biologists use observation skills, field guides and dichotomous keys to identify unknown evidence and how to look for clues that would help them determine if the animal that deposited the scat was a carnivore, herbivore or omnivore. The books gave us a lot of interesting and fun facts that hooked the kids into wanting to know more. I plan on expanding this lab next year into a 3-day investigation into scat and have the students come up with their own questions prior to giving them information and resources.

