

## Comal Public School Foundation Winning Grants Spring 2004

### RoboLab – Hoffmann Lane Elementary

\$4,956 to Kimbra Culpepper, B. J. Gilstrap

Fifth & sixth grade students will use the Lego Mindstorms building set to build and program a robot to complete an obstacle course. They will have to create gears within the robot to help with acceleration problems and analyze gear to wheel ratios. In the 2004-2005 school year incoming 6<sup>th</sup> graders will be able to expand on their knowledge. They will use creativity, logic and problem solving skills to design, build, and computer program a real-life mechanism that performs a specific task in an imaginary city.

### Not Just Robotics – Comal Elementary

\$4,500 to Mary Kay Covington, Juan Ramos, Suella Shaner, Paul Walsh, Sayde Dunlap, Joni Coker

*A Lambda Construction Co. Innovative Teaching Grant*

This project is a technology integration experience which will teach problem solving, science, math, engineering design, and critical thinking skills using real world applications. Utilizing “Robolab” software, the RCX Robotics Command System, and LEGO DACTA building materials, the students will build the robots and design a computer program to control the movements of their robotic inventions. The students will test their inventions and redesign the robots and their programming based upon their conclusions. Emphasizing teamwork, the students will make connections across curricular areas and develop understandings of force and motion, mathematical reasoning, and problem solving.

### Lunchbox Laboratories – Arlon Seay Intermediate

\$2,850 to Charles Brite, Judy Murray, Suzanne Oliver

*A Guadalupe Valley Telephone Cooperative Innovative Teaching Grant*

According to the most recent TAKS test results, students scored the lowest in the areas of earth and physical science. This enrichment project would provide students with lunchbox size lab kits filled with materials to complete science experiments at home in those targeted areas. Specific directions would be included allowing parents to participate as well. The kits would be “mobile labs” that the students would get to take home on a rotating basis. Once the lab is completed it is returned to the class where the materials are replenished and sent home with the next student. By the end of the school year each student will have had the opportunity to complete 25 different labs in earth and physical science in addition to the labs completed in the classroom.

### Looking to Learn, Learning to Look – Hoffmann Lane Elementary

\$1,675 to Angel Ximenes

Through the use of a variety of media, art masterpieces will be used to stimulate the integration of art into elementary school curriculum content for grades K-6. Collections of art prints, videos, c.d.'s, books, and computer programs will serve as a curriculum stimulus for research, writing, mathematical problem solving, scientific investigation, cultural awareness, and, of course, creation of art by school children. Guided by the TEKS that drive the learning environment in an elementary school, art images will be matched to content areas to bring alive the myriad of concepts needing to be taught to children.

### Hydroponics in the Classroom – Arlon Seay Intermediate

\$1,140 to Judy Murray

The Nitrogen, Oxygen, and Water cycles are three of the most important scientific patterns children need to understand in order to have a complete conceptualization of how living organisms in our world work together. However, textbooks and worksheets make these cycles so abstract students have a difficult time

internalizing these concepts and, therefore, are not able to connect these cycles to real life situations. This project would give students a hands-on opportunity to see these cycles in action. Cycles that once seemed abstract will become concrete as students work with and manipulate nutrients, water, and living organisms in this “soil less” environment to produce healthy plant growth in the classroom.

### **Authentic Applications for Digital Video Imagery – Comal Leadership Institute**

\$1,300 to Russ Ansley

*A Hanson Inc. Innovative Teaching Grant*

CLI serves a wide diversity of students who are at risk of dropping out of high school. Last year our new service learning project, “Barrier Buddies”, sparked a surprising interest in both students and community participants. An outgrowth of this program was the creative use of digital media by students in English, Math and Technology classes. Students were invited to tour a college campus to participate in a workshop, attend special presentations about issues concerning disabilities, and use digital imagery to enrich their class work. As a direct result of this program, two CLI graduates received service recognition during graduation, and overall student interest in digital imagery has significantly increased. This project is designed to build on this momentum and augment the “Barrier Buddies” program with polished video productions created by engaged student writers and technologists.

### **Integrating Literacy in Social Studies and Science – Comal Elementary**

\$1,290 to Misti Dunlap, Joni Coker

*In honor of Comal Elementary’s Outstanding Staff of Teachers and Support Personnel*

Integrating literacy into social studies and science is an important component of a balanced literacy program. As a district, this type of integration is what we are moving towards. The funds will be used to provide our students with high-interest, low level fiction and non-fiction books. The *Pair-It Books* program helps smooth the transition from familiar narrative text to expository text by pairing fiction and non-fiction titles that share the same high-interest topic. *Pair-It Books* provide the means for readers to learn to compare and contrast fiction and non-fiction and develop reading strategies for a wide range of genres, which will not only better prepare them for TAKS, but also aid them in becoming more analytical and critical readers.

### **How Our Garden Grows – Comal Elementary**

\$400 to Cheryl Smith

An after-school garden club that would emphasize physical exercise, healthy food choices, team building, and integrate all subjects. The project would target fifth grade students including those at risk for juvenile diabetes. A diverse group of students would be teamed for the year and meet on Wednesday afternoons. Using technology, science, reading, math and social studies, students will design, plant, and tend the school gardens. The project hopes to expand the following year so more children will be impacted.

### **Project Science Shuttle – Frazier Elementary**

\$4,815 to Elizabeth Adams, Cindy Rum

*A Joeris General Contractors Innovative Teaching Grant*

Science Shuttle Tubs will facilitate the students journey across the curriculum, from knowledge to evaluating the scientific process with the use of experimentation, creating hypotheses that reflect real life situations, and analyze the information gathered using tools that reflect what a thinker in the age of technology would use. Third grade teachers will be issued a science tub that will include the science equipment. The tubs/equipment will be used for instruction that is aligned with the science TEKS.

**The Book Nook - Hoffmann Lane Elementary**

\$2,000 to Susan Croteau, Janalyn Moos, Amanda VanNatta, Tobie Cattarin

The Book Nook is a project designed to improve second graders' reading and writing performance by bringing a wide variety of reading materials into the classroom for everyday use. The library will contain high-interest text in numerous genres and at several reading levels, as well as reference materials. The materials will be used to meet several second grade curriculum goals, the second grade TEKS, and the guidelines of educational researchers for a successful literacy program.