

Brooke Elementary School
Goats, Green Thumbs and More

Brooke Elementary School staff has worked with the 4-H program and Texas Cooperative Extension since 1992. Brooke was the pilot school for a five-year project designed to bring positive youth development to inner city school children. Extension programming including 4-H is "Real Learning for Real Life". We believe that agricultural awareness can be the vehicle for addressing many issues that are important to students, families and communities.

Although 4-H is much more than agriculture, we propose to use the 4-H curriculum and resources to educate youth across the curriculum. We expect youth to explore social studies, science, math and literacy through agricultural topics and educational events. Engaging urban youth in agriculture is a challenge that is worth pursuing as this is an area that effects all areas of life. Urban youth do not often have a good understanding of how food is produced and marketed. They have few experiences planting seeds and growing gardens or raising animals. Research is clear that children benefit from gardening and animal projects. Participants do better in school and develop positive life skills.

The collaboration between Brooke Elementary School, Cooperative Extension and 4-H will create an agricultural awareness project that engages urban youth and their families in understanding important food and fiber concepts. Brooke has several on-site garden areas that will be used in teaching agriculture concepts. Vermi-composting as a component of gardening will teach good stewardship through concepts of reduce, reuse and recycle. Vegetable

matter will be composted using worms that will create fertilizer. This cycle of life is a similar concept used by farmers and ranchers and illustrates good land use.

Brooke's approach to maximizing knowledge of agriculture will train teachers to incorporate a holistic approach with ag programming in science and social studies classes; incorporate gardening and animal science in afterschool programs, and encouraging parent participation in targeted programs.

Texas Cooperative Extension-Travis County will provide basic agriculture programs and resources that will insure program success. Cooperative Extension staff members and volunteers have expertise in a variety of agriculture areas for both youth and adults and are committed to a partnership that will benefit our school and ultimately our community.

4-H CAPITAL provides positive youth development for limited-resource youth and meets Brooke's goals for providing enrichment for deserving youth. 4-H Afterschool will play a key role in providing opportunities for these deserving youth to learn the complete agriculture process - from the field to the table. The Brooke planning team will work with 4-H and Cooperative Extension to provide or assist with the following projects: Afterschool: Urban Animal Science, Jr. Master Gardener; In School: Food and Fiber Expo, the Mobile Dairy Truck, Egg to Chick; Parent Involvement: Master Gardener, Entomology (pest management), Nutrition Education.

The Mobile Dairy Classroom is designed for youth in grades K-5. This interactive learning module teaches: that the milk we drink comes from dairy cows; the major nutrients from the dairy group; other products made from milk; and provides an overview of a modern dairy operation. Brooke's 4-H program

staff will arrange for Southwest Dairy Farmers to provide the Mobile Dairy Classroom, which includes a live animal and a subject matter expert. The presentation includes a demonstration of the milking operation using a live dairy cow.

Youth in grades 3-4 will explore the Food and Fiber Expo, coordinated by Texas Cooperative Extension staff in collaboration with Pioneer Farms and Texas Farm Bureau. The Food and Fiber Expo teaches the relationship of agriculture to people's lives in an urban setting. Central Texas agricultural commodities will be highlighted with sessions on cotton, wheat, beef, swine, poultry, goats/sheep, vegetables, and water. Other sessions of importance to central Texas are entomology and food safety.

The Food and Fiber Expo teaches students about the following: history of cotton farming, products produced from cotton, and cotton pests; animal industries of the area such as beef, swine, poultry, and goats/sheep; vegetable gardening teaches about food production and food safety. Participants are encouraged to try new foods, increase vegetable consumption of locally grown items and to plant "backyard food factories". Clean water and hand washing, important to food safety are also critical to agriculture issues.

Brooke students in grades K-5 will benefit from hands-on experiences exploring the life cycle through growing vegetables, composing plant materials with vermi-composting, and utilizing the fertilizer for plants.

Youth in grades k-1 grades germinate seeds in the classroom then transplant to mini vegetable gardens. The harvested produce and related hands-on activities teach youth about the health benefits of a diet high in fruits and

vegetables. Students learn how produce and other food products start from farms and ranches and finally arrive on their dinner tables.

Grades 2-3 teach the science of agriculture through embryology projects. Egg to Chick guides students through the life cycle process as they hatch eggs in the classroom.

Grades 3-5 teach about animal science topics. Brooke students raise meat goats through 4-H to exhibit in local livestock shows. Classroom activities that are related include food preservation such as drying foods for longer storage. Examples of dehydrated foods are meat jerky, dried apples, dried herbs and vegetables.

Grades 2-5 teach about environmental issues important to wildlife and range management through multimedia teaching modules: Somethings's Fishy, Wildlife Success Stories, City Critters, and White Tail Deer. These teaching modules address issues that impact agriculture and urban families.

Support from the Texas Department of Agriculture will provide opportunities for Blanton youth to become more aware of agriculture by raising livestock while they learn about animal science, veterinary science, and agriculture; germinating seeds and planning gardens with a focus on greenhouse activities.

Brooke Elementary School is a community school with strong support from local organizations that provide resources including volunteers for this program. Texas Cooperative Extension's nutrition and horticulture staff, 4-H staff and others will collaborate to oversee some of the programs, provide staff training, and resources to supplement this project.

Goats, Green Thumbs and More brings agriculture alive in an inner-city setting and will benefit our youth and their families as they discover the importance of agriculture and agricultural products. Brooke's leadership team believes in community partnerships that include Texas Cooperative Extension's many varied programs. We believe that agriculture is an important teaching tool for engaging families and community organizations.

Goats, Green Thumbs and More!

Budget

Soil, seeds, pots for in-school projects	\$400.00
Supplies for nutrition education projects for Youth and parents	\$200.00
Transportation to Food and Fiber Expo – 2 buses	\$400.00
Expenses related to Mobile Dairy Classroom	\$100.00
Animal Science Expenses	
Goats, feed, vet supplies, Embryology supplies	\$1100.00
Bus transportation to animal science events	\$200.00
Consumable Materials & Supplies	<u>\$100.00</u>
Total Budget	\$2500.00