Holdenville Education Foundation, Inc.
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Grants to Teachers Application

Cover Page

Please use a typewriter or word processor to complete this application.
Submit in the format listed below.

Date: March 24, 2005
Grant Title: "Something Smells Fishy"
School: Thomas Elementary
Grade Level: 6th Grade
Content Area: Animal Science, Conservation, Earth and Ecological Sciences
Total Dollar Amount Requested: $1033.22

Carrie McFarland
Signature of Grant Applicant

Jean Alexander
Signature of Building Principal

Please mail applications to: Holdenville Education Foundation
PO Box 641
Holdenville, OK 74848
Attn: Teacher Grants Committee

If you have any questions or need further assistance, please contact Shellie Gammil at 379-5484

1. MAJOR EDUCATIONAL NEED

Science is all about "hands-on" exploration. How better to investigate nature than to have it right in the classroom. Unfortunately, not every student at Thomas Elementary is allowed to have a pet at home; however, every student who completes the sixth grade will have that opportunity at school. Learning the responsibility of taking care of our animal population is an important aspect of elementary science. Fish can also provide a wonderful atmosphere for the students to enjoy while working in the classroom. The soothing sound of rippling water can be a positive influence on them. Seeing the graceful movement of fish swimming can have a calming effect on the classroom. This grant will purchase an eighty - gallon fish tank that is fully operational. This large-scale aquarium will allow students to care for, feed, clean and help keep this freshwater ecosystem in balance.

2. APPROXIMATE NUMBER OF PUPILS AFFECTED BY THIS PROJECT DIRECTLY AND INDIRECTLY

Every 6th grade student at Thomas will be directly affected by this project. All future 6th graders will also be affected directly. The 4th and 5th grade students will be affected indirectly, as well as the High School Biology classes and students from Reed Elementary.

3. DESCRIPTION OF THE PROJECT

This project involves purchasing an eighty gallon fish tank, two pumps, duel aeration, hood, fluorescent light, gravel, rocks, heavy-duty stand, and five fish. This aquarium will be located in the sixth grade Science Lab.

At the beginning of the school year 2005-2006, we will be researching which species of fish live well with each other in our "indoor ecosystem". The fourth grade's unit will investigate the anatomy of several types of fish. The fifth graders will examine pond habitats and how the seasons affect fish environments. Sixth grade will explore the life cycles of fish and their role in the food chain. The high school Biology classes will also visit our class to explain to the students about classification and interactions between organisms.

After our initial research is complete, we will be adding new and exotic fish to our eighty gallon tank. There is a local pet store in Holdenville where we will be ordering the fish. We will also be using another Holdenville business, Wal-Mart, for purchasing food, filters, water testing equipment, and replacement parts.

The Oklahoma Wildlife Department's local Fish Hatchery has agreed to let the students visit their facility and speak with the children about fish habitats. They will also be bringing a fish exhibit to our school for everyone at Thomas to enjoy, and give pointers on fishing in Oklahoma. The Oklahoma Wildlife Department will also send our school educational videos over fish to view by all students. All services provided by the Wildlife Department will be at no cost to our school.

The local Soil and Conservation Service oversees a day of outdoor learning every year at Thomas Elementary. They bring in several local experts to teach children about conservation, erosion, the water cycle, animals, and being earth friendly. Students receive hands-on education at no cost to them or the school. Teachers and students can also receive free information on how to start raising fish, through pamphlets and booklets, from the local OSU Extension Office.

At the beginning of Spring, the sixth graders will then take a trip to the Oklahoma Aquarium in Jenks. This facility houses over one million gallons of water, with over 200 exhibits. It also has five "wet labs" where the students can conduct freshwater and saltwater experiments. This grant will cover half of the cost of the trip . The Thomas Elementary fund will cover the other half.

Currently, the sixth grade Science Room has a small, twenty gallon fish tank. We will be converting it into a freshwater reproduction and growth tank to supply the Outdoor Classroom with fish stock, which will supply the Bird Sanctuary with a food source. The fourth and fifth graders will assist with this process. In the future, we will turn this small tank into a saltwater tank, to house different species of fish.

After the sixth graders become confident in their fish knowledge, they will invite classes from Reed Elementary to visit our room. The older students will share the information they have obtained with the younger students. The Reed Elementary children will then have the opportunity to see the fish in action.

To end the year, we will be taking the sixth grade on a fishing trip sponsored by the Fish Hatchery, and supervised by school personnel and parents.

This project will not only teach the students responsibility, but it will also provide students with knowledge about living things in our environment. The students at Thomas will become co-owners in our indoor fish habitat. This entire project will involve educating through an aquatic experience.

RESOURCES: The following people have offered their assistance and expertise in helping with our project:

John Davenport - Fish Hatchery	Susan Pierce - OSU Extension Agent
Danny Bowen - Fish Hatchery	Lisa Rogers - Aquarium Owner
Dana Miller - Specialty Pet Shop	Clint Garrett - Biology Teacher
Andrea Jones - Soil & Conservation	Susan Paslay - Science Teacher
Becky Smith - Oklahoma Aquarium	Brandi Mariott - Wal-Mart Pet Dept.

4. TIME SCHEDULE OF IMPLEMENTATION

This project will follow the seasons.

SUMMER: The initial set-up of the tank and acclimating the current fish with the new ones.

AUTUMN: Researching units about fish with the fourth, fifth, and sixth grades, and the high school biology classes
4th - Fish Anatomy Unit
5th - Pond Habitats / Fish Environments
6th - Life Cycle, Food chain, and Ecosystems
High School Biology - Classification and Interactions

WINTER: 4th, 5th, 6th grades - View a Fish Exhibit, provided by the local Fish Hatchery
4th, 5th, 6th grades - Watch videos supplied by the OK Wildlife Department
6th grade - Visit the local Fish Hatchery, tour the facility, and speak with their specialists

SPRING: 4th, 5th, 6th grades - Add new fish to the outdoor classroom
6th grade - Teach Reed Elementary classes
6th grade - Take a trip to OK Aquarium in Jenks
6th grade - Go fishing

5. DETAILED BUDGET REQUEST

1.	80 gallon tank, two pumps, duel aeration, hood, fluorescent light, gravel, rocks, heavy-duty stand, and five fish.	$300.00
2.	Food, filters, aeration tubing, water quality testing equipment, and replacement parts.	$200.00
3.	Fish up-keep - purchasing new, exotic and replacement fish.	$150.00
4.	Trip to the Oklahoma Aquarium in Jenks. * This is half of the price of the trip for the 6th grade, Thomas Elementary will pay for the other half.	$265.00
5.	Reading Materials:	
	A. Dr. Axelrod's Atlas of Freshwater Fish	$69.97
	B. Encyclopedia of Aquarium Plants	$17.47
	C. Aquariums for Dummies	$15.39
	D. Saltwater Aquariums for Dummies	$15.39
6.	Trips to the Holdenville Fish Hatchery	**FREE**
	Wildlife Department Videos	**FREE**
	Activity Units	**FREE**
	TOTAL	**$1033.22**

ALTERNATIVE: IF FULL FUNDING IS NOT AVAILABLE

1.	80 gallon tank, with assessors	$300.00
2.	Fish up-keep - new, exotic and replacement fish.	$150.00
	TOTAL	**$450.00**

6. METHODS USED FOR MEASURING STATED OBJECTIVES

This project can be assessed through teachers evaluations over the units completed for 4th, 5th, and 6th grades. The units cover several PASS Objectives for each grade, and are part of the state science curriculum. With help from Mona Mondin, Thomas Technology Educator, a portfolio will also be constructed to display the processes we used to achieve our indoor ecosystem.