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# GRANTS TO TEACHERS APPLICATION COVER PAGE

Date:

February 27, 2006

Grant Title:

Science Exploration

Grant Applicants:

Crystal Bruner, Amy Byerly, Pat Glasco,

Mary Jo Myers, and Danielle Patterson

School: Ethel Reed Elementary

Grade Level:

First Grade

Content Area:

Science is the primary emphasis of the grant. Math and Language Arts objectives will also

be utilized to provide cross-curricular

lessons.

Total dollar Amount Requested:

\$1,133.05

Crystal Bruner Amy Byerly Patricia Glasco

Signature of Grant Applicants

Signature of Building Principal

Please mail 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 Gammill at 379-5483

# Grants to Teachers Application Form

1. What is the Major Educational need this grant addresses?

Currently the first grade classes do not have the necessary materials to teach the science curriculum using age appropriate methods. Three years ago McGraw-Hill science curriculum was purchased for the first grade, but none of the materials necessary to implement this curriculum were provided. The materials purchased with this grant will be used to provide hands-on experiences that will meet each Science PASS Objective. The Science PASS Objectives are the requirements that the state of Oklahoma mandates teachers use to plan curriculum. The materials will be placed in thematic, cross-curricular units, allowing each first grade classroom to collaborate and share materials. The thematic units in the first grade curriculum are A Tree, The Sky, Matter, Matter Everywhere, On the Move, A Pond and The Human Body.

2. Approximately how many pupils will be affected by this project, both directly and indirectly?

There will be approximately 100 students directly impacted by this project during the 2006-2007 school year. The materials are non-consumable so this on-going project will affect an infinite number of students during the subsequent years. The project has been planned and organized so that all students regardless of learning levels or disabilities will be able to participate and be active learners in the science curriculum.

3. Describe your grant including methods, materials and objectives. Foundation grants are intended to fund a creative teaching plan, so if equipment or materials are requested it should be clearly stated as to why they are integral part of the plan.

Large plastic tubs will be equipped with materials to conduct experiments and operate centers for six separate fields of scientific study. The tub has three purposes: 1. Trouble-free transport from room to room, 2. Safe storage of materials, 3. Ease of organization of materials. Each tub will include scientific materials, literature, and teachers' guides to help the teacher expand the knowledge base of the students in that particular area. These science tubs will be rotated throughout the grade level every six weeks, so that each class will have access to the materials throughout the entire school year. The focus of the materials will be to provide meaningful hands-on lessons while promoting the study of science.

When a teacher receives a science tub they will be able to utilize the materials to expand the curriculum in all areas. For example if it is their classroom's turn to have the Human Body tub they will have literature, experiments, and learning centers that are based on the study of the human body. The teacher will read the provided science curriculum as well as other literature about the human body. The class will

have centers with puzzles and other hands-on activities that the students will be able to manipulate to study the human body. The teacher will present a lesson on how to correctly measure height using a folding ruler and weight using scales. The exciting activities will create an interest in the study of science which potentially will have an enormous impact on student achievement in our district.

#### **OBJECTIVES:**

For the project as a whole the learner will:

- 1. Expand general scientific knowledge base.
- 2. Develop an interest in the study of science and science related fields.

#### **A TREE**

Tree objectives: The learner will:

- 1. Observe and investigate plants.
- 2. Observe and describe what various plants need for growth.
- 3. Observe and describe the changes that plants go through during their lifetime.

## Materials for A Tree

Tub

Hand Magnifiers

Big Screen Microscope

A/C Adaptor for Microscope

Prepared Slides: Complete Set

Instant Learning Center: Plants

#### THE SKY

Sky objectives: The learner will:

- 1. Explore temperature differences caused by the sun.
- 2. Investigate how shadows change throughout the day.
- 3. Observe and describe daily weather characteristics.
- 4. Observe and describe characteristics of the four seasons.
- 5. Identify and describe changes in the moon's shape.
- 6. Explore why stars shine.

## Materials for The Sky

Tub

Wall Thermometer

Student Thermometers

GeoSafari Talking Telescope

Instant Learning Center: Weather and Seasons

Seasons and Weather Theme Box

## MATTER, MATTER EVERYWHERE

Matter objectives: The learner will:

- 1. Recognize and describe properties of objects.
- 2. Determine that all things are made of matter and have mass.
- 3. Explore and describe the different properties of solids, liquids and gases.
- 4. Explore how heat can make different types of matter change from solid to liquid and recognize that matter can change from liquid to gas.

## Materials for Matter, Matter Everywhere

Tub

Beginning Measurement Theme Box

Five Senses Theme Box

Student Thermometers

Shatterproof Safety Mirrors

Instant Learning Center: Five Senses

#### ON THE MOVE

On the Move objectives: The learner will:

- 1. Use position words to describe the movement of objects.
- 2. Explore how the different parts of an object work together to form the whole and explain how something might not work if a part is missing.
- 3. Compare the movement of living and nonliving thing; animals and people.
- 4. Identify how needs are met by moving.

## Materials for On The Move

Tub

Flexible Vehicles

Gears! Gears! Building Set

Tools & Machines Theme Box

Magnets Science Tub

Nonhardening Modeling Clay

#### A POND

Pond objectives: The learner will:

- 1. Explore and describe the life cycles of various pond animals.
- 2. Identify what some pond animals eat.
- 3. Describe a food chain.
- 4. Explore and identify ways that some animals can change to protect themselves from predators.
- 5. Explore the various parts of a pond.
- 6. Identify how ponds change during each season.

#### Materials for A Pond

Tub
Sink or Float Exploration Kit
Insects and Spiders Tub
Frog Puzzle
Bug Rubbing Plates
Bugs Floor Puzzle
GeoSafari Talking Microscope

### THE HUMAN BODY

The Human Body objectives: The learner will:

- 1. Observe how living things grow and change.
- 2. Measure parts of the body and communicate using numbers how much living things grow.
- 3. Recognize and describe how the parts of the body that help people move.
- 4. Identify the characteristics of skin and the nature of germs.
- 5. Discuss health safety issues associated with germs.

## Materials needed for The Human Body

Tub Human Skeleton True to Life Human X-Rays Whose Baby? Photo Puzzle

Parts of the Body Floor Puzzle

Hand Magnifiers

Classroom Safe Science Specimens: Life Cycle Set

Heavy Duty Stethoscope Life Cycles Theme Box

4. Give a time schedule of implementation.

This project will begin the first week of school and be operational for the entire year. Plastic tubs will be filled with materials to conduct experiments and operate learning centers for six different areas of scientific study. Each class will receive a tub for a six week period. The tubs will then be rotated throughout the grade level.

5. Detail your budget request. Include specific information about kinds of materials and equipment needed, sources of supply, and costs (including shipping and handling). If possible, list alternatives if full funding is not available.

A Tree	<u>Cost</u>
$\overline{Tub}$	4.82
Hand Magnifiers	49.00

Big Screen Microscope	49.95
A/C Adaptor for Microscope	9.95
Prepared Slides: Complete Set	36.00
Instant Learning Center: Plants	19.95
The Sky	<u>Cost</u>
Tub	4.82
Classroom Thermometer	9.95
Student Thermometers	25.60
GeoSafari Talking Telescope	33.85
Instant Learning Center: Weather and Seasons	19.95
Seasons and Weather Theme Box	39.95
Space Theme Box	39.95
<u>Matter, Matter Everywhere</u>	<u>Cost</u>
Tub	4.82
Beginning Measurement Theme Box	39.95
Five Senses Theme Box	39.95
Student Thermometers	25.60
Shatterproof Safety Mirrors	25.00
Instant Learning Center: Five Senses	19.95
On The Move	<u>Cost</u>
Tub	4.82
Flexible Vehicles	8.65
Gears! Gears! Gears! Building Set	23.59
Tools & Machines Theme Box	39.95
Magnets Science Tub	39.95
Nonhardening Modeling Clay	15.90
A Pond	<u>Cost</u>
Tub	<u> </u>
Tuo Sink or Float Exploration Kit	39.50
Insects and Spiders Tub	39.95
Frog Puzzle	22.95
Bug Rubbing Plates	7.95
	11.29
Bugs Floor Puzzle GeoSafari Talkina Microscopa	33.65
GeoSafari Talking Microscope	33.03

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<u>The Human Body</u>	<u>Cost</u>
Tub	4.82
Human Skeleton	23.25
True to Life Human X-Rays	26.95
Whose Baby? Photo Puzzle	10.25
Parts of the Body Floor Puzzle	15.39
Hand Magnifiers	49.00
Classroom Safe Science Specimens: Life Cycle Set	39.50
Heavy Duty Stethoscope	8.95
Life Cycles Theme Box	39.95

Subtotal \$1010,04

Shipping: (The materials are from more than one company) \$123.01

Total \$1133.05

6. What methods will be used for measuring the stated objectives, or what definite evaluation will you make to determine whether the grant was successful? (Please be specific.)

The age level of the students dictates that teacher observation and class discussion are used to evaluate understanding and comprehension.