

## TERRA MINI-GRANT APPLICATION 2013-2014 SCHOOL YEAR

**The Technology Education Resource & Redesign Alliance (TERRA)** is a non-profit organization whose mission is to mobilize the resources, knowledge, and capacity of individuals, foundations, business and industry in shaping and facilitating educational policy, practice, and research for increased achievement in a global environment.

**What this funds:** TERRA's Mini-Grants are intended to support school-based projects in pre-K through 12 that are consistent with TERRA's mission, and have a positive impact on education by using technology. These grants should fund initiatives that utilize technology in a new and innovative way or sustainability initiatives seeking to encourage and support creative, local environmental education and stewardship activities.

**Who can Apply:** Florida public, charter, and private schools and educators are eligible to apply.

**Amount awarded:** A total of \$30,000 will be made available for a limited number of awards ranging from \$500 to \$3,000. Grant applications may be submitted for the 2014/2015 school year from September 1st through midnight October 3rd, 2014. The TERRA Grant Committee will review proposals and make funding recommendations to the TERRA Board of Directors.

**What we are looking for:** TERRA seeks applications for projects in which students participate in learning experiences that utilize technology in an innovative way or promotes environmental sustainability. **Funding is intended to encourage and support creative activities that build on the unique assets and strengths of individual education communities.** As part of this project, individuals receiving awards will be required to share what they learn with the broader community through outreach such as public events, presentations and displays and/or media engagement. Preference will be given to projects with matching funds or in-kind services.

**Details:**

- **The deadline for the 2014-15 school year is October 3, 2014. Applications received after this date will not be considered.**
- Financial assistance is limited to \$3,000 per school, per year.
- Grantees will be required to provide ongoing feedback of grant activities, documentation of their project, including a financial report of how money was spent, at least 5 high-resolution digital photos (including publicity releases), and a short reporting form.
- The Teacher/Applicant listed is whom we will contact regarding your application.
- Inquiries should be submitted via email to: [grants@terraonline.org](mailto:grants@terraonline.org).

**Application Instructions:**

- To apply, please submit this completed form by October 3, 2014.
- Fill out the form completely
- Gather appropriate signatures. Applications without signatures will not be considered.
- Submit signed proposal via e-mail to [grants@terraonline.org](mailto:grants@terraonline.org) with your school name contained in the filename.
- We will confirm receipt of your application within 2 weeks via email. If you have not heard from us, please contact us at [grants@terraonline.org](mailto:grants@terraonline.org). Awards will be sent within one month of application submission.

**TERRA MINI-GRANT APPLICATION  
2013-2014 SCHOOL YEAR**

**A. SCHOOL AND APPLICANT INFORMATION**

<b>Submission Date:</b>	9-18-14	<b>School Year:</b>	2014-2015
<b>School Name:</b>	Lake Country Elementary		
<b>Applicant Name:</b>	Gitona Rogers		
<b>Principal Name:</b>	Erica Ashley		
<b>County:</b>	Highlands		
<b>Type of School:</b>	<input checked="" type="radio"/> Public	<input type="radio"/> Private	<input type="radio"/> Charter
<b>Student Enrollment:</b>	580	<b>Number of Teachers:</b>	35
<b>Range of Grade Levels at School:</b>	Pre-K through 5th	<b>% Eligible for Free/Reduced Lunch:</b>	84%
<b>Applicant's Phone #(s):</b>	Schools Main # 863-699-5050	<b>Direct # (ext. or cell)</b>	863-446-0379
<b>Applicant's Email Address:</b>	rogersg@highlands.k12.fl.us		
<b>Applicant's Affiliation to School/Organization</b>	Classroom Teacher		
<b>If Applicant is a Teacher, please list:</b>	<b>Teacher's Grade Level(s):</b> 3rd	<b>Teacher's Subject(s) Area:</b> Reading, Math, Science, and Writing	
<b>If Parent/Community Volunteer or Other non-school staff, please list School Contact as a Co-Applicant:</b>	<b>Co-Applicant Name:</b> Kathy Robinson	<b>Co-Applicant Affiliation to School/Organization:</b> Retired Teacher-Volunteer	
<b>If Co-Applicant is a Teacher, please list:</b>	<b>Teacher's Grade Level(s):</b>	<b>Teacher's Subject Area(s):</b>	

**B. PROGRAM INFORMATION**

<b>Please list the focus area(s) for this TERRA Mini-Grant request.</b>	Technology Integration in Reading, Math, Science, and Writing	Leadership-Community Collaborations on current issues and information dissemination	Environmental awareness and Stewardship of areas lakes and land.	Increasing student engagement and motivation
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**C. PROJECT INFORMATION**

<b>Project Title:</b>	
<b>Project Start Date:</b> November 2014	<b>Project End Date:</b> April 2015
<b># of Students Participating:</b> 22	<b>Grade Levels of Students Participating:</b> Third Grade
<b>Mini-Grant Abstract (300 word max):</b> Briefly describe what your proposed project is about. Abstracts of winning proposal will be viewable at <a href="http://www.terraonline.org">www.terraonline.org</a>	
<p>Lake Country Elementary is a small rural school surrounded by 28 lakes and many agricultural businesses, such as, Cattle, citrus, horticulture, sod and vegetable farming. Over the years, our community has seen a decline in the water quality of our lakes, loss of habitat for wildlife, increase in encephalitis caused by mosquitos, hive collapses in our honeybee industry, and an increase in citrus greening and canker in our large citrus industry. All of these problems, and their intended remedies, are directly and indirectly connected to each other and have had a powerful impact on our environments health. Our students scored the lowest in the district in science with only 21% making a passing score, with reading and math slightly above. A barrier to learning has been 84% of our students qualify for free and reduced lunches, most living at or below the poverty line. Along with, 58% of our students being second language learners with limited experiences and awareness of above issues and how they may be affected today and in the future. Our project's intention is to integrate today's technology, the state standards, leadership/community projects, and our area's environmental issues and concerns with "Project Based" learning. Their projects will connect them with real issues, experts in the field, research, and community involvement as</p>	
<p><b>TERRA • P.O. Box 12848 • Tallahassee, FL • 32317-2848 • <a href="http://www.terraonline.org">www.terraonline.org</a></b></p>	

## TERRA MINI-GRANT APPLICATION 2013-2014 SCHOOL YEAR

they share their findings at parent nights, Audubon Club meetings, Newspapers, etc... Projects shared will consist of: displays, PowerPoints, and published books consisting of nonfiction text features to be placed in the library for checkout. Our hopes are to help students see the how and why learning is relevant to them, while increasing student motivation, and engagement in the learning process, along with encouraging long-lasting changes in attitudes about curriculum in our classroom, school and community, whereas enriching our uninspiring current curriculum.

### Mini-Grant Project Proposal (1500 word max)

Please explain how your proposed project/activity will enhance learning for your students. Include the following:

- 1) How is your project innovative? (25 points)
- 2) How will it fit into your curriculum (include standards)? (10 points)
- 3) How will it encourage long-lasting change in your classroom, school or community? (20 points)
- 4) How will technology be utilized? (20 points)
- 5) What evidence will you collect to show student gain? (10 points)
- 6) How will participants share your project results with the community? (15 points)

My favorite quote is by John Dewey, "If we teach today as we taught yesterday, we rob our students of tomorrow." With this in mind, our project's intention is to integrate today's technology, the state standards, leadership/community projects, and our area's environmental issues and concerns with "Project Based" learning. Our hopes are to encourage long-lasting changes in the classroom, our school and community, while enriching our uninspiring current curriculum.

**Why:** Our curriculum is intent on preparing students to be college ready however, by looking at our spring state tests (FCAT), our undistinguished curriculum has failed dramatically, with only 21% of our students reaching passing or above in science (the lowest scores in our district), with reading and math slightly above. By focusing on a diet of paper and pencil recall, we have lost out on the development of teacher/student creativity, innovation, enthusiasm, and motivation for learning. This has led to a generation of unengaged students' struggling to recall facts without the ability to apply and transfer what they have learned to real life issues.

**Who:** An additional problem our student's face, is that we live in a rural agriculture community with 84% of our students qualifying for free and reduced lunches, most living at or below the poverty line. Along with, 58% of our students being second language learners with parents unable to assist them. These students do not have the life experiences, vocabulary, or a deep enough understanding of the English language to aid in their transfer of book knowledge. Not only are they in the midst of a cultural and economic divide, they are also facing a digital divide with few having the means to have Internet enabled technology at home. At school our technology opportunities are dedicated to rote assessment and remediation activities.

**How:** Our intent is to actively involve the students in their own learning in an innovative, relevant, and engaging fashion. To begin with, students will begin research by designing a list of environmental questions to email to local and state agencies. Through these collaborations students will then develop a list of the top environmental concerns involving our school and community using grant supplied tablets. Students will then present their research to the class, after which, the class will then vote on the top most important issues. The top 5 issues will then be used to create student interest groups of 4 and 5. Some of their research and collaborations with real world experts, will then help them to develop questions such as: Why have our area's 28 lakes surrounded by agriculture and housing had a change in water quality. Is it the agricultural runoff? Has the aggressive control of encephalitis carrying mosquitos in our surrounding areas, led to a loss of natural predators such as frogs and ladybugs? Why has the native bird populations changed? Is it a loss of habitat? What types of agricultural changes have been made to lessen the negative effects on the environment? How can we equate the environmental quality of our school pond to the quality of our lakes? Will better filtration and aeration of the pond's water improve the water quality? (Our pond's current filter is barely working and underpowered for the size of the pond, # of fish, and amount of vegetation. ) The school pond will serve as a model of what is happening in our lakes, and help us to explore the why and what can be done to safely improve this fresh water habitat while protecting all of its inhabitants.

Curriculum Integrations of Innovations will be documented in a wide variety of ways. Some examples of both

## TERRA MINI-GRANT APPLICATION 2013-2014 SCHOOL YEAR

Curriculum and Innovation interfaces are as follows:

- Grant supplied hand held tablets will allow students the ability to take their research outside to pictorially document steps taken to finding answers to their questions using the **State and National science standards, and the scientific process.**
- The grant supplied tablets will allow students to conduct research outside the classroom, while utilizing the school's existing Vernier scientific probes for measuring and graphing: temperature, motion, and light. **State and Common Core math and science standards will be practiced.**
- Students will participate in real life investigations by collaborating with experts in the field. Possible examples depending on student vote: \*Cornell Universities' Lost Ladybug project (<http://www.lostladybug.org/about.php>), \*Frogs as bioindicators, <http://www.savethefrogs.com/why-frogs/>, \*Florida Bat Conservancy, Bats as natural predators of mosquitos- Speaker- Bob Hummel Highlands County Audubon Society (<http://www.floridabats.org/index.htm>), \*Mosquito fish as natural predators of mosquito larva in our ponds and waterways, Speaker- Colin Calway Happy Trails Aquatics (<http://www.happytrailsaquatics.net/default.html>), \*Archbold Biological Station, (Speakers-Mark and Nancy Deyrup)loss of habitat for the Florida scrub jay.(<http://www.archbold-station.org/html/research/avian/avian.html>). \*Citrus Greening and Canker- Speaker- 3<sup>rd</sup> Generation Grove Owner Mr. Charles Reynolds. (<http://www.crec.ifas.ufl.edu/extension/greening/index.shtml>), \*Plight of the Honeybee- area hive collapses- Speaker David Austin Highlands County UF/IFAS Extension (<http://floridabeekeepers.org/aboutus.htm>).
- Students will become official junior members of the Highlands County Audubon society, which would include collaborations, and visits with Audubon society members.
- Local environmental education and stewardship concept development thru field trip to Archbold Biological Station and MacArthur Agro-ecology research centers. During these visits they will listen to speakers discuss the impact the growing population and agricultural base has had on our local environment and the wildlife contained which included a number of endangered species and what can be done, and is being done, to become a steward of the land.
- Students will take notes and pictures of the habitats and things they feel important to their research using their portable tablets.
- We have a school pond begging for use and rich in educational research possibilities. While in need of a little attention, it is a perfect on-campus example of our local wetland habitats and source for additional project research.
- As part of our leadership project, our class has also taken on the responsibility of bringing new educational value, for all students and classrooms, in our pond. Using the Pond Water Tour we will chart water quality tests for pH, dissolved oxygen, nitrate, and ammonia using safe, simple TesTabs<sup>®</sup> reagent tablets. We will also test variables and investigate natural processes that create changes in water quality over time. (Science and math standards)
- Students will invite Mrs. Erin McCarta, Director of Highlands Lake Watch, to demonstrate tests taken on local lakes, using school pond, and how to interpret data. (Math and Science Standards)
- Students will take pond water samples, and chart temperature changes and their effects on habitat using the Vernier Probes and tablets. (Math and Science Standards).
- Student groups will develop PowerPoints, using their tablets, to document their environmental research project's

**TERRA MINI-GRANT APPLICATION  
2013-2014 SCHOOL YEAR**

process and results. (Informational Literacy and Technology Standards)

- Students will present their PowerPoints at an Audubon Society community meeting as junior members. (Technology, Listening and Speaking Standards)
- To integrate (Informational Literacy and Technology Standards), each student group will create a nonfiction book to be published using Shutterfly. Each book will include the nonfiction text features tested on such as: Title Page, Table of Contents, index, glossary, headings, and subheadings, illustrations and photographs, keywords, captions, diagrams, labels, text boxes, maps, charts, schedules, tables, etc, and then placed in the Library to be checked out as a long lasting guide and example of Environmental and Literacy student leadership.
- Students will produce interactive projects to upload to Voice Thread which will give them the ability to communicate with other scientist and students from areas with similar environmental concerns.

The evidence I will collect to show student gains will be demonstrated in several ways: First, a pre and posttest will be given on environmental issues and purpose of Nonfiction text Structures, use of the scientific process to collect and document data, research skill development throughout the process, presentation of research materials from beginning to end at during student led parent conferences, PowerPoint development, presentation of PowerPoint at Community Audubon Society meeting, parent night, the creation of a Nonfiction book detailing their environmental project while demonstrating and identifying the nonfiction text structures agreed upon, and finally, the sharing of their books with other grade classrooms to encourage other teachers to integrate technology in new and different ways. In addition, my students will save all their projects on their tablet, which will then be able to be saved to a SD card. These student portfolios will then be able to be taken home at the end of the year as additional evidence of student growth and mastery of the standards throughout the year. These digital portfolios are more personal, giving ownership to their work. However, while this quantitative (academic) growth in the state and common core standards with increases on standardized tests is fundamental, on the qualitative level, student attitudes, engagement, enthusiasm, and pride in their learning and community involvement will be my greatest indicator of student growth and success.

As mentioned above, sharing the PowerPoints and student created books with other classroom teachers throughout the school, parents, and community members will also help all to see how and what can happen with some creative innovations using technology.

**D. BUDGET:** Describe all costs associated with your project activity. (Attach additional pages if necessary)

Service/Item Description	Cost
Shutterfly- classroom story photobooks (10)	\$224.90
Book: Bats of Florida (1)	\$26.11
Bat House: Three Chamber Wooden Bat House Assembled (1)	\$79.00
Bat House: Three Chamber Wooden Bat House Kit (1)	\$98.00
1500 Live Ladybugs (1)	\$9.40
Books: Kids Discover: Ponds, Pack of 8 (1)	\$39.60
LaMotte Pond Water Tour (1)	\$79.95
Field Collecting :Pipet (4)	\$18.00
Book: Golden Field Guide Ponds (2)	\$16.20
Book: Golden Field Guide Insects (2)	\$16.20
Laguna Pressure-Flo 3200 UVC Filter (1)	\$344.99
Laguna Max-Flo 2000 Electronic Waterfall and Filter Pump for Ponds Up to 4000-Gallon (1)	\$174.09
Samsung T210 Galaxy Tab 3 7.0" 8GB WiFi SM-T210 Black (5)	\$796.95
Hard Candy Cases for 7-Inch Samsung Galaxy Tab 3 - Shock Drop - Black (SD7-SAM3-BLK) (5)	\$249.80

**TERRA MINI-GRANT APPLICATION  
2013-2014 SCHOOL YEAR**

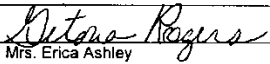
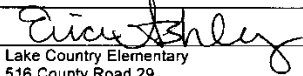
microSD (5)	\$27.00
Field trip to MacArthur Agro-ecology Research Center (Bus Cost)	\$245.00
The Life and Times of the Honeybee-NF (1)	\$6.25
Life of the Honeybee (Carolrhoda Nature Watch Book) (1)(1)	8.06
The Life Cycle of a Honeybee (Nature's Life Cycles) (1)	7.33
Time for Kids:Bees (1)	3.74
What If There Were No Bees?: A Book About the Grassland Ecosystem (Food Chain Reactions) (1)	8.05
Are You a Bee? (1)	6.29
The Ladybug Life Cycle(1)	3.43
A ladybug larva grows up (1)	5.85
A Ladybugs Life-Nature upclose (1)	5.85
Are you a Ladybug? (1)	6.29
Life of the Ladybug(Nature WatchBook) (1)	8.06
Time for Kids: Ladybug (1)	3.74
Time for Kids: Frogs (1)	3.74
Insect Lore Ladybug Land (1)	14.73
Live Frog Growing Kit/Habitat (1)	36.90
National Geographic Readers Frogs (1)	3.95
Frogs (1)	5.41
Frogs, toads, and turtles: Take Along Guides (1)	7.15
The Frogs and Toads of North America: A Comprehensive Guide to Their Identification, Behavior, and Calls Includes: CD of Calls (1)	13.01
Face to Face with Frogs (1)	6.25
Life in a pond- Rookie Read about Science (1)	4.45
Pond by Donald Silver and Patricia Wynne (1)	8.55
Your Healthy Garden Pond (Interpet Handbooks) (1)	6.99
Vista Print Medium Banner (1)	35.67
<b>Total Cost of Project</b>	<b>\$2,622.27</b>
<b>Amount requested from TERRA:</b>	<b>\$2,622.27</b>
<b>If matching/additional funds have been identified to help pay for your project, please list →</b>	<b>Source:</b>
	<b>Amount: \$</b>
<b>If any goods or services have been donated for this project, please list →</b>	<b>Source:</b> Speakers have all agreed to donate their time and services. Mrs. Robinson (Retired teacher and reading coach) has agreed to help students with creation of PowerPoints and Nonfiction books.
	<b>Goods/Services: 0 Cost</b>

**TERRA MINI-GRANT APPLICATION  
2013-2014 SCHOOL YEAR**

**E. COMMITMENT**

By submitting this application and signing below, you agree to the following:

- TERRA is not liable for any injuries or losses that may occur as a result of participation in the proposed project.
- The applicant is responsible for submitting required documentation via e-mail to TERRA including on going updates, financial report, high-resolution digital photos (and media releases) that are cleared for use in TERRA's outreach materials, and any mini-grant project-related lessons developed. A short reporting form will be sent to schools when awards are made.
- Schools that do not submit reporting documentation materials automatically waive this remaining 10% and may jeopardize future funding opportunities.
- Equipment purchased using mini-grant funds will become the property of the school receiving funds.

Applicant's Name:	Gitona Rogers		
Applicant's Signature:		Date:	9/19/14
School Administrator/ Principal's Name:	Mrs. Erica Ashley		
School Administrator/ Principal's Signature:		Date:	9/19/14
School Address (for mailing of award)	Lake Country Elementary 516 County Road 29 Lake Placid, Florida 33852		