

South Todd Elementary School

4115 Guthrie Road, Guthrie, Kentucky 42234

Principal: Doug Cotton

Assistant Principal: Laura Jenkins

Counselor: Nicole Osborne



January 7, 2019

To: Todd County Board of Education

Regarding: TVA Mini Grant

South Todd Elementary School request approval to apply for the TVA Mini Grant that is available to schools in the TVA area.

The grant provides up to \$ 5000 for schools to enhance science curriculum in the areas of Environment, Energy, Economic and Career Development, and Community Problem Solving.

This grant does not require any financial commitment from the school or district.

I received information about this grant over the Christmas Break and the due date is this Friday, January 11, 2019.

We appreciate your consideration in the matter.

Sincerely,

A handwritten signature in blue ink that reads "Doug Cotton". The signature is written in a cursive, flowing style.

Doug Cotton

TVA Mini-Grant Application

The TVA Mini-Grant Program, sponsored by the Tennessee Valley Authority in partnership with Bicentennial Volunteers Incorporated (BVI, a TVA retiree organization), is designed to fund STEM learning projects in classrooms and schools in the TVA service area.

“The Tennessee Valley Authority understands that excellence in education is the key to our future,” said TVA STEM Education Manager Rachel Crickmar. “We want to work directly with teachers to support initiatives that advance STEM activities in the classroom to develop a talent pipeline for TVA and its customers.”

About TVA

The Tennessee Valley Authority is a corporate agency of the United States that provides electricity for business customers and local power companies serving nearly 10 million people in parts of seven southeastern states. TVA provides flood control, navigation and land management for the Tennessee River system and assists local power companies and state and local governments with economic development and job creation.

Deadlines and Eligibility

- The 2018/2019 Mini-Grant application opens Friday, Dec. 7, 2018, and closes Friday, Jan. 11, 2019.
 - All applicants will be notified of the status of their application by Feb. 28, 2019.
 - Grants may be requested in the following amounts: \$500, \$750, \$1,000, \$1,500, \$2,500, \$3,500, or \$5,000 per school. Please use the supplied **Budget Template**.
 - This is a competitive grant competition. Applications should be original work and not provided by a vendor or retailer.
 - Preference will be given to grants that help students explore TVA’s primary areas of focus: the environment, energy, economic and career development and community problem solving.
 - Must be a public school to receive funding.
 - School must receive power from a TVA distributor.
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Examples of Previously Funded Projects for Each Focus Group:

Environment:

Project: Sequatchie River Water Study

School: Bledsoe County High School

This project provides the tools for the Bledsoe County High School's Ecology class to conduct a semester-long study of the water quality in the Sequatchie River. Four sites are utilized along the river in Bledsoe County: two upstream and two downstream of the sewage treatment plant. Students test for nitrates, phosphates, silica and pH. Carbon dioxide, water hardness and dissolved oxygen are also studied, in addition to a test for bacterial (coliform) pollution.

The students also collect and identify micro and macro invertebrates in the river. This project allows students to discover the value of macro invertebrates as living indicators of water quality. The data collected is then analyzed by the students at the end of the semester, and the students create videos and presentations to showcase their testing and findings.

Energy:

Project: Pedal Power!

School: Lookout Valley Middle School

This project is designed to motivate students to exercise while teaching them concepts in STEM. The project allows students to collaboratively build bicycles that can create and capture electricity into a usable power source. Lessons include electricity, sustainable energy sources, technology, engineering, design and various math concepts. The students are able to take a battery pack that is empty and, by riding the bicycles they built, produce electricity to recharge the battery. The project collaborates with teachers in subjects across the curriculum including P.E., science, math and physics.

Economic and Career Development:

Project: Programming for Future Careers with Arduino

School: EL Ross Elementary

According to Wired Magazine, "reading and writing code is the new literacy." This project provides an initial experience with programming, coding and electronics to ignite enthusiasm for

future STEM careers. Each elementary student uses an Arduino Inventor's Kit to gain a foundation in programming, coding and troubleshooting.

As students progress through third, fourth and fifth grades, sequential instruction builds on the students' knowledge and includes more complex programming and coding projects. Students are encouraged to explore electronics through a series of projects with hands-on instruction. They gain an understanding of the foundations of programming, electronics and mechanics. This ignites their enthusiasm for technology and provides a springboard for career exploration. Instruction takes the students beyond the electronics aspect of the project when they use their completed projects in math and science explorations.

Community Problem Solving:

Project: Physics & Physical Science in Traffic Safety

School: Columbia Central High School

Providing information to teenage students about the importance of driving safely is imperative. This project provides a course of study that invites students to take and apply physics concepts to traffic safety. Students create their own plan to collect data on seatbelt usage from their own communities, and statistically analyze their data versus state and national trends. This project focuses on concepts related to the conservation of momentum, impulse and force, while also showing students the importance of safety while operating or riding in a motor vehicle.

Application

Eligible applicants are teachers or school administrators in public schools, grades K through 12. Schools must be located in the TVA service area and receive power from a TVA distributor. Application opens Friday, Dec.7, 2018, and closes Friday, Jan. 11, 2019.

