

Advancing Technology in the Science Classroom

Classroom Grant

Will James Middle School

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Application Form

Report Fields

Project Name*

Name of project

Advancing Technology in the Science Classroom

Amount Requested

Amount requested on application.

\$1,000.00

Grade Level

Please select grade level below.

Middle School (7-8)

Primary Subject Area

Please select the primary subject area of your grant.

Science

School

Please select your school from the list below

Will James Middle School

Number of Students Served

Please enter the number of students that will be served by this grant.

250

Project Cost

What is the total cost of your project?

1,000

Statement of Need

Please describe the need for this project. For example, how will this project impact student learning?

It is my hope, to have laptop computers available for the variety of technical activities I have my students engage in throughout the school year. These activities include, but are not limited to research and writing projects, robotics, graphing and analyzing data, and conducting virtual lab activities.

Part of the upcoming Common Core requirements, is to have students engage in at least four research projects throughout each year. Over the past 20 years, I have developed an adaptable research process which is very efficient, successful, and manageable for students as well as for educators, but it requires students to have extended access to classroom computers during this process. I will be presenting this process at our upcoming Tech Fair in April.

Students learn to focus their exploration of an assigned research topic through "need-to-know" guiding questions, they learn to properly document citations into a bibliography, they compose a rough draft, edit their work, and finally compose and share their finished copy. All of the documents students create are done using their district accounts, where each student shares work with their teacher. This allows for teachers to easily check on student progress, offer assistance, and measure learning. This also allows for future collaboration between different curricular areas.

With the help of a parent, I started a US FIRST FLL robotics program at Will James, which has blossomed into three teams. Students work after school on designing and programming Lego NXT and EV3 robots to complete missions in an annual Lego challenge. I have only one computer for 30 members to use for downloading software and for programming. I would like to eventually do robotics with my eighth grade classroom students, if I had more access to computers.

I would like my students to be able to graph their lab results, and analyze their data using computer graphics.

Finally, I would like my students to be able to tap into the resources they have available to them using virtual lab demonstrations, that would be too dangerous and impossible, given our science classroom lab conditions. Our textbook comes with virtual lab lessons. Many lab demonstrations are available through our Montana universities. Students could work in smaller groups and at different paces if I had more than one computer available for their use.

Primary Goal

Please describe the primary goal of the project and how it blends with School District 2 goals and curriculum.

(Please see the above statement of need.)

Project Description

Briefly identify the major activities and materials involved in your project.

4 laptop computers at \$250.00 each.

Professional Development

If your project includes professional development how will it improve student performance?

Ongoing education on new ways to apply technology.

Project Timeline

When will you implement your project?

As soon as I get the laptops.

Plan for Evaluation

How will you evaluate student outcomes for your project?

I will give students pre quizzes and post quizzes and document the use of the computers.

Project Budget

Please explain how the funds from this grant will be spent to support your project goal. You can either type or upload a project budget to show how funds will be used. Please identify other funding sources if applicable.

Supervisor Approval*

I have received approval from my supervisor to apply for this grant.

yes

Attachment 1

Please attach any photos, pages from catalogs, or other documents below. This is completely optional.

Attachment 2

Attachment 3

File Attachment Summary

Applicant File Uploads