S.T.E.A.M.ing into the 21st Century

Classroom Grant

Castle Rock Middle School

Mr. Shaun Harrington   harringtons@billingsschools.org
1441 Governors Blvd   O: 281-5800
Billings, 59105   F: 254-1116

Ms. Michele Leafdale

1441 Governors Blvd   leafdalem@billingsschools.org
Billings, 59105   O: 281-5855
                                        F: 254-1116

Application Form

Report Fields

Project Name*
Name of project

S.T.E.A.M.ing into the 21st Century

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.

Arts (Music, Art)

School
Please select your school from the list below

Castle Rock Middle School

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

150

Project Cost
What is the total cost of your project?

1000.00

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

The need for additional technology in my classroom has become abundantly clear to me in recent years with the educational paradigm shift to S.T.E. A. M. education: the melding of science, technology, engineering, arts, and mathematics, as I try to bring my students and myself into the 21st century using technology in my art classroom. As one of the original members of T.A.L.E.S. to now a new member of TILT, I have seen how

much technology has changed in the last 10 years and ways I would like to incorporate it more effectively in my classroom considering these technological and educational change.

Our technological world is rapidly changing and greatly influencing what motivates our 21st century learners, how they acquire new knowledge, and how they apply this information in their academic world, as well as their lives outside of school. It is my desire to incorporate technology through the use of ipads into my daily teaching to enhance the district's middle school art curriculum and address these changing needs of our 21st century leaners, so they can apply this information to both school and their world.

Current research has proven that technology is molding the brains of our children today and it is vital that our teaching reflects this understanding. I have no intention of abandoning the teaching of traditional art techniques and processes, but rather enhance the delivery, acquisition, and access to art using technology. In doing so, it opens my classroom doors to the world while engaging this "neuro" shift of our students.

The following examples illustrate the way I am currently attempting to support these changes. The first example is how I teach the 8th grade ceramics unit. I teach traditional hand building techniques and processes along and its history, but put a tech twist on how they select the theme of their ceramic project. The students search the internet using their phones or devices for a piece of art work that inspires them. Then they incorporate this idea into their three dimensional ceramic project. Before we have only had access to books, prints, and slides in the classroom which was a very cumbersome and time consuming undertaking. Using their phones in this way is highly motivational for middle schools students and also provides them with an incredible amount of ideas to choose from. I have also assimilated the use of technology into an art lesson recently with an 8th grade project which was displayed at the Yellowstone Art Museum this year. Instead of creating traditional collages, the students composed a digital collages using photographs taken on the phone cameras. I have uploaded examples of this project with this grant.

Here in lies the need for additional technology in my room. We are a BYOT school, bring your own technology to school. Our students are allowed to use their own devices in class for educational purposes which has allowed the teachers freedom from needing to sign up for a mobile lab. The lab at times can be difficult to fit into a schedule that works for our needs and those of the other teachers. The majority of students have their own devices with the exception of about 5-6 students per class. Currently I borrow devices, such as ipads from other teachers for these students to use, but if a project runs longer than expected these devices have needed to be returned before my students have finished. This can be very disheartening to these students and I hate to have them placed in this position. With having additional ipads in my classroom, I could help meet the needs of our students without devices.

Additional ipads would also provide other educational opportunities in my classroom through the use of numerous apps, to enhance projections, and as a document camera which could record demonstrations. My current document camera uses a light, which can make my demonstrations almost impossible to see. The ipad does not use a light to capture the images.

Primary Goal

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

My goals are two fold. The first goal is to bring my students and my own understanding of technology up to date and into the 21st century by implementing current technology through different classroom applications. My second goal is to support S.T.E.A.M. education; science, technology, engineering, arts, and mathematics, in my classroom to help create 21st century learners that are ready for the ever changing world we live in with an emphasis on how the arts and technology can enhance each other.

To bring up the level of understanding up to date in the uses of technology, my students and I need to have access to technology and use it has much as possible. The opportunity to be in TILT is providing me with current trends and how to implement this technology in my classroom. As an example my Weebly address is, micheleleafdale@weebly.com. It contains information I have learned this year in TILT and tech ideas I can implement into my classroom.

Project Description

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

The materials I am asking for are one mini ipad, one full size ipad, and one tripod/presentation easel for the ipad. The major activities involving the use of these materials will provide for enhancing my curriculum, and motivating student learning, as well as providing a great source of information available for student use. These uses are not confined to my subject area and could easily be shared with other subject areas and teachers. These activities are also not finite. Having these materials will allow for acquiring new tech skills for future application in the classroom as they are developed.

Examples of how these ideas can be integrated with the use of ipads in the classroom are as follows. The first two examples highlight how the delivery of information could be used by providing the ability for me to move through the classroom while projecting images, websites, etc. when used with the app, Reflector. The other application specific to delivery, but reaching into the realm of improving student learning would be when an ipad can be used as a document camera with the capabilities of recording the lessons I teach with the use of the Stage app. The ability to use recorded lessons to reteach or as review allows me to meet the various needs of my students in a more effective and efficient manner.

I can not say enough for increasing students motivation to learn through the use of technology used effectively in the classroom. At the beginning of the semester when I introduce art as the first visual form of communication I use the website, www.lascaux.culture.fr which lets you navigate the caves of Lascaux, France where the first cave painting are located. This site lets you navigate the cave system where people are not allowed and were only viewed in the past from photos. It would be even more motivating for my students to use their own devices to explore the caves independently. Having additional devices would make it possible for my students who do not have smart phone to participate equally. Another activity which increases student motivation is when my students take pictures on their own phones or use photos from their own photo galleries from their phones. An example of this is the digital collage project my students created this year for the 8th grade Yellowstone Museum Art Museum show. After taking a fieldtrip this Fall to the YAM to study Theodore Wadell's show, my students created digital collages using their own photos from their phones to portray the idea of Conceptual Art. The focus of this assignment was to create an art work about the concept or idea rather than the representation of an object.

Another way the ipads could be implemented into my classes is through the creations of commercials in imovie. My World of Work classes have done this in the past when they created commercials for their production groups and then we played these commercials on the interschool TV channel. This was a incredibly successful activity with my students. I no longer have been doing this activity in World of Work since we have very few computers available to run the latest version of imovie.

These are only a few examples of the activities I could use to enhance my curriculum, improve the delivery and acquisition of information, and increase student motivation within my classroom. I have yet to explore all of the possible apps available for ipads that could be used effectively in my class.

I plan on continuing to build the amount of ipads in my classroom, so I could have at least a one ipad to two student ratio over the years. This grant would be a beginning and I would continue to build on through other grants or sources of funding to attain this number of ipads.

Professional Development

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

My project does not ask for funding for professional development, but I am involved with professional development through TILT. For the next three years I will have the opportunity for hands on development of my tech skills and to support the implementation of these skills or ideas in my classroom. During TILT I will explore the additional opportunities to use ipads in ongoing training in the future.

Project Timeline

When will you implement your project?

I would implement the use of ipads in my classroom immediately through the activities described in my needs and goals statement of this grant.

Plan for Evaluation

How will you evaluate student outcomes for your project?

The evaluation of student outcomes for using the ipads in my classroom as described in this grant could be assess in a few different ways. An assessment used for creating commercials for World of Work could be in the format of a formative assessment which would provide the students with an evaluation of their work as the commercial is being created to guide their learning and a summative rubric assessment could be use on the final product. This type of assessing could be created for any art project the students created using their tech devices as a tool. To evaluate the delivery of information, the acquiring of new information, and increasing motivation with students using the ipads, I could create a, "rate the tech" assessment for my students that provide feedback to me of the students opinions of the effectiveness of the tech devices, app, etc. used.

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.

The funds for this grant proposal would be used in the following way:

ipad air = $600

ipad mini = $300

easel/ projection stand for ipad = $109

Total = $1009

I understand the nine dollars exceeds the budget, but would happily fund this myself out of my own pocket . If this option is not allowed, I could use funds from Castle Rock's budget as suggested by my administration.

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.

YAM project 1.jpg

Attachment 2
YAM project.jpg

Attachment 3
photo.JPG

File Attachment Summary

Applicant File Uploads
- YAM project 1.jpg
- YAM project.jpg
- photo.JPG