

Lewis Pod 'O Pads Finale– Physical Science

Classroom Grant

Lewis and Clark Middle School

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Application Form

Report Fields

Project Name*

Name of project

Lewis Pod 'O Pads Finale- Physical Science

Amount Requested

Amount requested on application.

\$879.40

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

Lewis and Clark Middle School

Number of Students Served

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

135

Project Cost

What is the total cost of your project?

879.40

Statement of Need

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

Our current Pod 'O 16 iPads has proved popular with our technology minded middle school students. The variety of apps and built in media functions make these tablets engaging for learning new concepts and reinforcing curriculum in an interactive format. Our teachers have moved from station or group work with the original 8 iPads to creating many partner activities to utilize the current pod.

In order to meet the needs of 21st century learners, students need access to current technology. Digital tablets such as an iPad2 are an affordable device with computing capabilities similar to laptops but with cloud based storage. Adding 7 more iPads will give students more opportunities to actively work in the digital environment and learn ethical use of not only the information they access and create, but also the use of shared resources. We will address

1. STE's NETs Standards for Students
2. Social, ethical, and human issues. Students practice responsible use of technology systems, information and software.
3. Technology productivity tools. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.
4. Technology communications tools. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

Furthermore iPads are an important tool to bring STEM (science, technology, engineering and math) project into the classroom. According to <http://www.ed.gov/stem> the United States has become a global leader, in large part, through the genius and hard work of its scientists, engineers and innovators. Yet today, that position is threatened as comparatively few American students pursue expertise in the fields of science, technology, engineering and mathematics. The National Science Association (NSTA) recognizes STEM programs as an important part of science education and iPads are one of the best tools available that allow teachers to create and implement STEM projects.

Primary Goal

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

Each digital experience offers an opportunity to model and expect ethical use of technology systems, information, and software (ISTE Standard 2 - See attachment 1). Every collaborative lesson with library and teaching staff at Lewis & Clark includes an aspect of digital citizenship whether it is citing sources for a research project, finding images in the public domain to use in a presentation, or talking about publishing student created work with Creative Commons attributes. Students are also expected to care for the shared devices (See attachment 2). The new Bloom's Taxonomy model shows cogs that interact at multiple points rather than the traditional pyramid. (Attachment 3). The iPads Apps shown on the graphic's website <http://www.schrockguide.net/bloomin-apps.html> afford multiple learning styles with a single device. Photo editing, sound recording, dictation, and drawing Apps create original projects students then share on the web through virtual class Schoology or Edmodo.

Project Description

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

This project involves continuing the creation of a classroom Pod of iPads for students to use collaboratively on projects and for lessons. The pod will be accessible in the Library for teachers to check out and use for classroom projects. Typically they will go to a room for a few days to a week and be used in a learning station model. At this point the library portion of the grant will beef up the pod's infrastructure - streamlining the recharging process and creating an iPad loaded with teacher tools (software such as Plicker, Near Pod Teacher, Relection; accessories such as a stand to turn the iPad into a document camera. Licenses of Apps purchased for the Pod will now be at a reduced price since we have more than 20. All projects are stored in the cloud - student D2Google accounts or classroom folders with a teacher's folder in our Lewis Pod 'O Pads Dropbox account. New Apps installation and back-ups are facilitated on one of the library workstations.

Professional Development

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

Teachers involved in this Pod 'O Pads- Redux grant come from TILT and Cadre, professional development programs guided by the team of Technology Integration Specialists for SD2. Pod'O Pad teachers freely share their experiences and introduce the rest of the Lewis staff to creative applications of both technology and tools during PIR days and informally "across the hall". The group of teachers involved in this Finale phase will provide inspiration, instruction, and troubleshooting to their Lewis colleagues. As a second year TILT member I have been exposed to many of the important uses of iPads and I have the pleasure of sharing this with my colleagues here at Lewis and Clark. This has provided many thoughtful and productive collaboration opportunities between the staff here at Lewis and Clark. The iPads have allowed us to share and try new lessons that greatly benefit our students.

Project Timeline

When will you implement your project?

The iPads in this grant cycle will be available as soon as they are received, Apps are loaded, and the screen covers applied. Apps are installed through a desktop computer in the library so that current backups of each device are available when needed. Purchased Apps are requested through Deana Elder, Computer Engineer in the Technology Dept., usually with a two day turn around time.

Plan for Evaluation

How will you evaluate student outcomes for your project?

Plan for Evaluation:

Many of the iPad projects are scored with a PBL (project based learning) rubric. Others are based on a sequential submission of tasks completed. Evaluation of library projects is done in conjunction with classroom teachers whose students are using the iPads for a project. Most library originated activities include a form of

self assessment (like the Oceans exploration worksheet with QR self-check) or are project based with the iPads providing one point of access either to the information or the tool for creating a final product to share.

Whether you are looking at the traditional (revised, Bloom's pyramid with "Creating" at the top) or the new Cog graphic, sharing information that students construct themselves and receiving authentic feedback can be accomplished in the web environment the Apps make so easy on the iPads.

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.

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In kind support will be provided by department funds for purchase of accessories

such as stylus and new Apps to be loaded on all iPads in the Pod. Science probes or

language accessories may be considered.

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.

NETS_for_Students_1998_Standards.pdf

Attachment 2

Care of Pod 'o Pads.docx.png

Attachment 3

blooms_gears_ipad_720x952.png

File Attachment Summary

Applicant File Uploads

- mynfPQ4oIM-ZIw_2XdMoC33wcp13hPJgYzbeTeTTiUs.jpg
- NETS_for_Students_1998_Standards.pdf
- Care of Pod 'o Pads.docx.png
- blooms_gears_ipad_720x952.png



Technology Foundation Standards for Students

The technology foundation standards for students are divided into six broad categories. Standards within each category are to be introduced, reinforced, and mastered by students. These categories provide a framework for linking performance indicators within the Profiles for Technology Literate Students to the standards. Teachers can use these standards and profiles as guidelines for planning technology-based activities in which students achieve success in learning, communication, and life skills.

Technology Foundation Standards for Students

1. Basic operations and concepts

- ▶ *Students demonstrate a sound understanding of the nature and operation of technology systems.*
- ▶ *Students are proficient in the use of technology.*

2. Social, ethical, and human issues

- ▶ *Students understand the ethical, cultural, and societal issues related to technology.*
- ▶ *Students practice responsible use of technology systems, information, and software.*
- ▶ *Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.*

3. Technology productivity tools

- ▶ *Students use technology tools to enhance learning, increase productivity, and promote creativity.*
- ▶ *Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.*



4. Technology communications tools

- ▶ *Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.*
- ▶ *Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.*

5. Technology research tools

- ▶ *Students use technology to locate, evaluate, and collect information from a variety of sources.*
- ▶ *Students use technology tools to process data and report results.*
- ▶ *Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.*

6. Technology problem-solving and decision-making tools

- ▶ *Students use technology resources for solving problems and making informed decisions.*
- ▶ *Students employ technology in the development of strategies for solving problems in the real world.*





Care of Lewis Pod 'O Pads

Please

- Keep iPad in Hardshell case at all times.
- Do not run updates
- Do not add new apps
- Log out of all accounts you open
- Close out of all apps.
- Delete photos and movies
 - o You can use the Pod 'o Pads Dropbox account for storage.

Please turn off each time an iPad is used:

1. Hold down the power button until the orange slider bar appears.
2. Slide across bar to the right.
3. Wait to close the case until it powers down.

Notify the Library of any issues you have with iPads (a sticky screen with it and problems to easy for us to find on the outside of the case).

The Library will recharge and clean iPads as needed.

Bloomin' Apps
iPad edition



Bloom's Revised Taxonomy

*The classification of cognitive processes
from simple to more complex*