Phillips 66 Grant
Technology Training Center

Technology Needed

Item Requested	Quantity	Cost Per Item	Total Cost	District Contribution	Phillips 66 Request
Promethean Board (ActivBoard 395 Pro?)	1	$1,700	$1,700	$0	$1,700
Mimio Interactive Projector w/one pen	1	$1,349	$1,349	$1,349	$0
Mimio Votes (set of 32)	4	$1,599	$6,396	$1,599	$4,797
Balt Presentation Cart	2	$352	$704	$352	$352
Redcat Audio System (RC2-VS)	1	$1,236	$1,236	$0	$1,236
Justand V2	1	$105	$105	$0	$105
MacBook Pro Lab (30 Computers with Cart)	1	$31,770	$31,770	$0	$31,770
iPad 30 Unit Learning Lab (Includes Cart)	1	$14,270	$14,270	$0	$14,270
Wireless access point	1	$405	$405	$405	$0
HP LaserJet Pro 400 Color M451	1	$350	$350	$0	$350
Folding Tables	15	$150	$2,250	$1,050	$1,200
Chairs with wheels	32	$85	$2,720	$1,020	$1,700
Totals:			$63,255	$5,775	$57,480

Justification of Needs
The creation of a 21st Century training room/classroom, would have a huge impact on teachers, students, and community members throughout the Billings area. The Technology Integration Specialists for Billings Public Schools currently conduct trainings, consult with classroom teachers, and model lessons for students in rooms that vary greatly as far as their accessibility to digital tools and resources.

In just the last 5 months, technology trainings have been in high demand; since September of 2013, the Technology Integration Specialists have conducted over 100 hours of training out of the school day, and more than 350 hours during the school day. Not only would the hours of impact be increased by having a designated training area, but the quality of these offerings would be drastically improved with reliable access to consistent, high-quality equipment.

Current trainings occur in various venues with mixed results, depending on the location and the equipment available. The Lincoln Center Board room is currently the largest facility we have for trainings and activities, and although it is large, it is not a conducive facility for innovative programs such as Project Lead the Way or Teachers Integrating and Learning Technology. One example of the limitations faced in this location is the Billings Technology Cadre, which meets in the Lincoln Center Board Room five Saturdays throughout the year. This year, the Cadre has hosted approximately 40 attendees per session. The problem with this space revolves around infrastructure and equipment problems. Participants are required to bring their own devices, which vary greatly in capabilities, and because some of the teachers travel from as far away as Glendive to attend, their devices are limited due to accessibility and compatibility with our network. Additionally, because the board room is a shared, multi-purpose space, Cadre facilitators spend at least two hours prior to the training just setting up the room. During trainings, surge protectors and power cords are woven dangerously across the floor, participants compensate for the extreme temperature variations by wearing blankets, and training time is spent troubleshooting individual devices. Having a safe, comfortable space in a designated training facility that was intended for collaboration and learning, along with access to a unified set of devices for trainings, would make for a more innovative, efficient and enjoyable training experience.

The Technology Integration Specialists have also hosted student activities in the Lincoln Center Board Room. One such event was the Hour of Code, during which 62 Billings intermediate students came to learn to write computer code. There were just enough devices for the students to complete the activities; however, these were either brought from home by the participants themselves, or made available on loan from at least four local teachers. This event was hugely successful, not because of the technology, but because of the gracious volunteers who came to assist. The idea of a technology club, where our local children could collaborate with teachers and community volunteers, has been discussed in detail, but without a space for the innovation of

young minds to converge, it has not yet come to fruition. Again, having access to a unified set of devices in a dedicated and well-equipped space, would provide an opportunity that cannot currently be offered.

Outside of the Board Room, the Technology Integration Specialists offer ongoing Professional Development opportunities throughout the school year. One such offering is the TILT (Teachers Integrating and learning Technology) staff development program, in which teachers are given 6 release days to work on methods of integrating technology into their curriculum. There are currently 80 teachers in this program; they meet by grade band for a more meaningful and authentic experience, and in small groups in order to accommodate for substitute teachers and to minimize building impact. Because of these considerations, there are TILT trainings at least 3 days in a typical week. These meetings are commonly held in room 406 of the Lincoln Center, which is equipped with interactive projectors and storage for miscellaneous equipment for use in trainings (or for check-out by teachers).

Other events that take place in room 406 are after-school technology trainings, in which hundreds of teachers have participated just this year. Unfortunately, this room is also shared with the Adult and Community Education program, which offers evening classes for members of the community. This requires careful coordination with the Adult Education Department for scheduling, and a concerted effort to respect the multiple purposes of this room. Much of the equipment used in these technology-based trainings is heavy and valuable, and therefore needs to be transported and/or locked up on days when the room will be shared. Additionally, with the upcoming construction taking place at McKinley Elementary, the Lincoln Center will be converted to classroom space for the 2014-2015 school year; room 406 (and several other rooms) will rightly be used by these displaced students, which will leave the Integration Specialists without a training space at all.

Having a dedicated training room would not only provide a place for these specialists and their equipment to move, but also serve to protect the technology investments that have already been made.

Numerous off-site trainings have been held, as well. The Riverside Middle School library, Castle Rock library, Burlington Elementary library, Rose Park Elementary library, and various classrooms throughout the district have played host to the "traveling shows" put on by the Technology Integration Specialists. Crates full of Chromebooks, cases carrying Mimio Vote systems, bags with projectors and their cords, and rolling suitcases filled with devices have been toted in and out of buildings in every weather condition imaginable; when a school requests a visit, the Integration Specialists aim to serve. A fully-equipped training room would provide a place to conduct staff meetings, trainings, digital tool demonstrations, and student/community technology events. This space would provide a venue where teachers, students, and community

members could come and learn to use, or even "test" drive, the equipment before investing in their own.

Many of the devices being requested for the room are currently active in classrooms (and businesses) around Billings. The Technology Integration Specialists receive numerous requests for trainings on interactive technologies, such as the Promethean interactive whiteboard and the Mimio interactive short-throw projector. Surrounding districts (even those as near as Lockwood and Laurel), whose teachers currently participate in the Billings Technology Cadre and our summer Technology Summit are currently using Promethean boards, and a few Billings schools (like Meadowlark Elementary and Skyview High School) are making the move toward this brand of interactive technology. Local companies, such as Kampgrounds of America, have even invested in the Promethean system to train new campground owners in a more interactive and engaging way. There are over 100 interactive projectors (Mimio included) in use throughout the district. The Technology Integration Specialist team believes strongly in the implementation of both Mimio and Promethean hardware and software. Both of these products offer a vast collection of resources for educators, and offer valuable support to users. The team has trained extensively on the Mimio Notebook software, and one of the members (Charles Harvey) is a certified Promethean trainer. If an "interactive-friendly" room existed in Billings, the knowledge and experience of the Technology Integration Specialists team could be more easily put to use through teacher trainings, student events, parent functions, and community partnerships. Having access to all of these devices in a shared facility would provide the opportunity to not only train educators, but to partner with parents and community members to demonstrate the more engaging ways that students are being instructed and prepared for future careers using interactive technology.

Finally, with the upcoming implementation of [Project Lead the Way](#), a project-based curriculum that focuses on the skills of Science, Technology, Engineering, and Mathematics (STEM), teachers and students from five Billings' elementary schools will be exposed to a rich and rigorous curriculum that emphasizes the 21st Century skills of collaboration, creativity, problem-solving, and communication. According to the PLTW professional development plan, teachers will be expected to go through phases, including:

Readiness Training, the first phase, focuses on building awareness and confidence related to K-5 STEM education, activity-, project-, and problem-based learning, and the role of the teacher and student as it relates to instruction. Readiness Training is a collaborative in-person training experience offered at the teacher's local school and facilitated by a [PLTW Lead Teacher](#) from the local school.

Core Training, the second phase, is specific to each PLTW Launch module and successful completion is required before teachers are provided access to classroom instructional resources. We use the PLTW Learning Management System (LMS) to deliver Launch Core training, which

consists of self-paced e-Learning resources. During training, teachers work through activity-specific overviews, instructional best practices, and opportunities to build understanding of both content and pedagogy. After successful completion of Core Training, teachers get access to the National PLTW Launch Professional Learning Community (PLC), module specific student and classroom instructional resources, and Ongoing Training resources through the PLTW LMS.

Ongoing Training, the third phase, consists of self-paced and live on-line e-Learning resources that provide enhancement opportunities and ongoing learning for educators. Ongoing Training encourages teachers to move beyond baseline knowledge and skills related to both content and pedagogy and deepen their understanding. Teachers also have access to training resources related to module updates and new releases.

Not only will each building's Lead Teachers need a centralized place to collaborate and learn, they will need access to the equipment and tools their staff members and students will be using to access the components of the program. Additionally, these expectations have a tremendous impact on the Technology Integration team, as many of the events are digitally focused. In order to have successful implementation of the program in upcoming and future years, when several more schools are brought into the fold, the integration team will need a place to host, train, and facilitate the professional development opportunities that will come as a result of Project Lead the Way.

Statement of Student Impact
Professional development must ultimately result in student growth. Training teachers to integrate technology into their existing curriculum should focus on methods that take advantage of technology-rich environments and the natural integration of technology in day-to-day instruction. Instilling appreciation for the value of digital tools and devices will create the biggest impact on student learning. If teachers are open to learning new technologies, and can effectively implement them in a coherent, balanced, curriculum-focused way, these tools will prepare all students for their futures, in which technology will certainly play a significant role.