

**State of Arizona**

**Arizona Department of Education**

**School Improvement Grant Cohort 1 and Cohort 2**

**Technology-Ready Schools and Classrooms Grant**

**Application**

**Cradleboard Elementary School**

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**Whiteriver Unified School District #20**

**Post Office Box 190**

**Whiteriver AZ 85941**

**(928) 338-4842**

**For SCHOOL YEARs 2012-2013, 2013-2014**

**In Accordance with**

**Title I - 1003(g)**

**No Child Left Behind Act of 2001**

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| **– Deadline –****Submission of Application****October 31, 2012** |

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**Part 2: Executive Summary**

In three pages or less, summarize your proposal. The summary should include: details of how your proposed project ***meets the needs of the purpose of this grant application***; an ***overview of the activities, approaches, and measures of success; and evidence of school readiness.***

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| **Program Context** Cradleboard Elementary School (CBE) is a K-6 public school on the White Mountain Apache reservation in the Whiteriver Unified School District in Whiteriver, Arizona. The LEA is approximately 200 miles northeast of Phoenix and 30 miles from the Show Low/Pinetop-Lakeside communities in the White Mountains. 100% of the students are Native American, mostly White Mountain Apache; 77% of the students qualify for free lunch, 12% of the student population are English Language Learners, and 14% of the student qualify for Special Services (Special Education). The school serves students in grades K-6. **Technology Needs** Results of an LEA-designed Technology Needs Survey administered to teachers revealed the following continuing issues and concerns on the part of teachers: a) a need for sustained professional development that supports the integration, use and proficiency when using technology in the classroom (curriculum and instruction); using effective strategies that provide overall continuous improvement of instructional skills to students; b) refining accessibility to digital content for use in lesson plans and activities with students; c) methods of effective use of equipment that is recommended for 21st century classrooms; d) effective integration of technology in the development of STEM activities as a means of preparing students for online assessment through PARCC; e) encouraging an atmosphere of a professional learning community both within the borders of the school and district and in the larger online community of educators.  Results of an LEA Technology Needs Assessment administered to IT personnel revealed Issues and concerns persist related to inadequate infrastructure and hardware that must support a sustained effort to improve teacher proficiency with technology integration and the use of 21st century tools in the classroom.  Students need greater opportunities to engage with technologies they will encounter in the larger world, including the online testing environment; teachers need to be able to effectively design and implement integrated instruction in preparation for implementation of Arizona’s K-12 Common Core State Standards (ELA and Math), and that cannot take place unless the infrastructure for technology can be adequately maintained and upgraded to operate more consistently and reliably. Hardware issues include the need for updated laptops with video capability for teachers; ability to easily access digital content when needed for classroom activities and projects; and increased numbers of individual computing devices for students, along with training on the effective use of the equipment for both students and teachers.. The LEA, because of its remote location, contends with a chronic problem with bandwidth. Some solutions have been to broaden the Local Area Network to sustain in-district needs; however, streaming, online assessments, large numbers of users trying to access the Internet, etc., have presented severe slowing of the content. In addition, the SAN (Storage Area Network) is in need of upgrades.**CBE Tech Grant** In order to address the issues and concerns indicated above, CBE is proposing to design a program of Technology Integration, Readiness For Learning, & Preparation for Online Assessment (TIRLA) that includes three components: ***High Quality Professional Development; Instructional & Technical Support;*** and ***Infrastructure & Hardware.*** The grant will be composed of two phases: **Planning** which will run from **January to June 2013**; and I**mplementation** which will run from **July 2013 through June 2014**. Research indicates that in order to ensure students are ready for online assessment and learning, a Technology-Ready school and classroom needs to be created and sustained.  The Planning Phase will be to determine the proficiency levels of teachers and students and create a professional development plan to raise their proficiency as new technologies and equipment become made available to them.  **High Quality Professional Development.** In order to lay out a system of high quality PD that will be systemic with, several things need to happen: a Technology Integration Coach and STEM Curriculum Developer need to be hired at the site to provide coaching and mentoring to teachers regarding technology integration and aligning current curriculum maps with ACCSS and NETS. The National Education Technical Standards need to be embedded in the LEA’s maps and immediate strides taken to integrate technology in all professional development efforts currently in place at the school regarding improving instructional ***best practices*** at the school. Using the LEA’s district-designed Needs Survey and student readiness literacy assessment and ADE’s Education Technology resources, including its Technology Needs Assessment, Teacher and Student Literacy Assessments, Technology Integration Matrix and Tools, as well as its Teacher Comfort Measure, and Arizona STEM Immersion Matrix, pre/post data can be collected to assist in determining the types of professional development and coaching needed by a wide skill level range of teachers. Evaluating effectiveness would come from the use of the Technology Integration Matrix Observation Tool that principals and coaches can use towards the end of a coaching cycle to determine effectiveness, strengths and weaknesses and areas to be adjusted for the next professional development cycle.  Technology literacy for teachers at CBE ranges from ***Developing to Proficient***; a series of required training for principals, coaches, teachers and students needs to be developed and facilitated by the Technology Integration Coach (school), Technology Integration Specialist (LEA), and Technology Coordinator (school) to bridge the proficiency skills gap to meet minimal standards of equipment and technology proficiency before implementing a rigorous, ongoing, job-embedded technology professional development model that interweaves with current job-embedded professional development efforts. It is believed that a Technology Integration Coach and STEM Curriculum Developer on site can accelerate the rate of growth, familiarity and use of technology in the classrooms with the students. Students as well will be in need of training on the use of the new technology planned for incorporation into the classroom, making it critical for teachers to become proficient quickly. **Instructional & Technical Support.** The purpose of the professional development is to ultimately enhance instructional activities, lessons, and units with 21st century technology as a way to prepare students for universal anywhere-anytime digital citizenship, a challenging task in itself. In-classroom support that is tied with the coaching/mentoring model provides a way to demonstrate and model methods and strategies regarding the use of 21st century tools and technology in the areas of: Instructional & Assessment Strategies; Integrating Curriculum (STEM); Technology Literacy; Preparing Students for Online Learning & Assessing. Using a site-based Technology Integration Coach, as well as a STEM Curriculum Developer, will provide added and enriched co-teaching and collaborative opportunities for teachers. Forming a professional learning community and encouraging participation on CBE’s and the LEA’s Moodle sites, as well as encouraging teachers to participate on web-based PLC’s (e.g., ISTE, ADE, AzK12 Center) will broaden the resources at hand for teacher and improve authentic teaching.  Technical support is needed to ensure new and updated equipment is functioning properly and that teachers have basic troubleshooting abilities. The inclusion of a technology integration coach at the school site will ease the burden and provide ongoing site-based coaching and mentoring for the school staff. A Technology Help Desk operated from the LEA’s Information Technology Department, will also provide additional troubleshooting and technical support for teachers in the classroom.  **Infrastructure & Hardware**. Several critical issues in the area of infrastructure & hardware need to be addressed during the life of the grant:* **Bandwidth**: :. Due to the remote location of the school and school district, internet access is very challenging. No Internet Service providers service the school area. The school received its internet connectivity from the LEA Wide Area Network (WAN). Currently, the school district’s Internet connectivity is at 16Mbps. The 16Mbps has to be shared between 2,200 students and 200 staff members.
* **Caching Servers**: One solution to the bandwidth problem is to provide caching servers regarding online streaming (e.g., Discovery Streaming; National Geographic; History Channel, etc.). Caching servers can provide a tool/resource which will support universal access and decrease demand for bandwidth, as well as a source of digital content; however, this is not exclusive to student and teacher universal access to real-time online resources.
* **Equipment**:Ensure equipment at the school is up-to-date and in working order; ensure adequate training to teachers, coaches, principals, and students is in place and covers: technology-rich classrooms; digital content in the classroom; technology proficiency; technology integration in the classroom; technology instructional strategies; enhancing student learning using digital content and multimedia resources. This series of training will be designed to meet a standard of technology and equipment proficiency.
* **Individual Computing Devices (ICDs)**: Ensure sufficient numbers of ICD’s are available to students (e.g., IPads), including student and teacher laptops, are in place (Ratio: K-2 three students per computer; Grades 3-11 Ratio: 1 computer per student); provide required training to principals, coaches, teachers and students regarding the use of individual computing devices and the applications that are appropriate for the device (e.g., Ipad Apps).
* **Digital Content**.Work with coaches and consultants to determine what interactive simulations, demonstrations, online streaming content can be housed on the school’s caching server; also determine and ensure installation of what digital content is appropriate to address specified achievement gaps/individualization of student’s learning experience. An example is using Apple’s Volume Purchase Program for Education to upload apps to IPads based on a review and selection process facilitated by the IT Director, the LEA’s Technology Integration Specialist, and the school’s Technology Integration Coach and includes participation by teachers, and coaches. Other areas that would be reviewed by this team include: Discovery Streaming, virtual trips, simulations, and online resources.
* **E-Rate.** E-rate leveraging includes replacing the existing phone system to save money and using those funds to purchase an additional 40mbps of bandwidth; this will not solve the bandwidth problem, but will help stave off crippling the system as additional funds for expanding bandwidth are explored. Switching the phone system to SIP (Session-Initiated Protocol) trunk technology will assist with the savings and leveraged ability under e-rate to increase bandwidth. The LEA currently is eligible for Priority I (re-occurring services) and Priority II (non-re-occurring; project-based; every five years) e-rate consideration.
* **Policies.** Update current Internet Use policy signed by teachers and students at the beginning of each school year. When reviewing and updating the current Technology Use policy and agreements, the Review Team should consist of stakeholders (teachers, administrators, Governing Board members, parents, Technology Department, and students [secondary] and should consider ISTE’s (International Society of Technology in Education) Top Ten priorities to consider when determining updates. The current technology policy in the district does not address outcomes associated with a 21st century technology-rich classroom. The review team will be redefining policy outcomes (acceptable use; filtering; security protocol; online safety for students and all

stakeholders; and the provision of flexibility and regular review of the policy.**Capacity Building & Sustainability.** * Embedding an intense, rigorous process of high professional development and instructional/ technical support to schools, teachers, and students will foster the building of capacity and sustainability within the school community
* With the current capital expenditures, the existing infrastructure life has been extended by six years.
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**Part 3: Project Design Components**

The *Project Design Components* sectionis the core of the application. The following table provides the framework for addressing the “*Project Design Components*.” Use the ***SII SIG Technology Grant Guidance Document*** and the two resources listed at the end of this section complete the following table. Add rows, as needed.

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| **1. High Quality Professional Development** |
| **Questions to consideration when identifying the school’s current status (baseline) with High Quality Professional Development?\*** |
| ***Where are teachers with their understanding and use of technology to support and enhance each student’s learning?*** * When examining results of surveys, Technology Needs Assessment and the Technology Integration Matrix for CBE, it was determined that teachers fall in the Approaching range of skills when attempting to effective integration of 21st century tools and technology in their classrooms.
* Currently, an LEA Technology Integration Specialist comes on-site once a week to provide support and training to teachers. Once a week does not leave sufficient time to provide sustained support to teachers.

***Do you have schedules in place that allow for job-embedded learning?*** * A job-embedded professional development model is in place at CBE, as well as across the LEA; however, technology integration and effective strategies in the use of technology to enhance student learning is sporadic and inconsistent and needs to be incorporated within the current job-embedded instructional professional development model/framework.

***What policies and procedures are in place to ensure effective professional development practices****?** The LEA’s Governing Board policy GCO specifies professional development for teachers; a revised teacher evaluation system, Teacher Effectiveness Performance Evaluation System, is in its first year of implementation (2012-2013).
* Current practices in the professional development model in use at CBE and the LEA are based on a model of practice/debrief/practice/debrief/observation and evaluation and include classroom walkthroughs, observation tools, coaching/mentoring feedback and teacher evaluations regarding the quality of training/mentoring and implementation of specific strategies and methods.
* Infusing the model with Technology Integration will reinforce the expectations of implementing strategies and technologies in a technology-rich classroom and school.

***How are funds used to support high quality professional development?***  * Currently, SIG funds are allocated for professional development in the area of technology integration.
* An LEA Technology Integration Specialist is on-site at CBE once a week to provide training and support regarding technology integration in the classroom and assisting teachers with the use of 21st century tools and technologies to enhance student learning.
* Under Title I the school funds an addendum for a local Technology Coordinator (certified teacher addendum) who provides 1:1 technology support and training when on-site.
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| ***Baseline Data*** (Indicate the tool used-partial list in Guidance Document) | ***Strategies***  | ***Action Steps*** | ***Timeline*** |
| LEA-Designed Technology Survey For TeachersADE Technology Needs AssessmentTechnology Integration Matrix – School LevelAIMS Results(*See below for 40-day count, AIMS Results, Equipment in place as of October 2012)*1 Principal 2 Instructional Coaches1 Title I Reading Specialist3 Special Needs TeachersTI Matrix: ***Approaching*** in six areas**Annual turn-over rate for LEA**: 33%**40-Day Count**

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| --- | --- | --- | --- |
| **GL** | **#** |  | **Tchr** |
| KG | 82 | **186****(*62)*** | 3 |
| 1 | 59 | 3 |
| 2 | 45 | 2 |
| 3 | 51 | **158** | 2 |
| 4 | 38 | 2 |
| 5 | 35 | 2 |
| 6 | 33 | 2 |
| SE |  |  | 3 |

**AIMS Results Spring 2012****Reading**

|  |  |  |  |
| --- | --- | --- | --- |
| **GL** | **%M/E** | **%App** | **%FFB** |
| **3** | **71** | **28** | **3** |
| **4** | **68** | **27** | **5** |
| **5** | **40** | **45** | **15** |
| **6** | **78** | **17** | **5** |

**AIMS Results Spring 2012****Math**

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| --- | --- | --- | --- |
| **GL** | **%M/E** | **% App** | **%FFB** |
| **3** | **46** | **48** | **8** |
| **4** | **46** | **32** | **22** |
| **5** | **23** | **48** | **30** |
| **6** | **43** | **34** | **22** |

No equipment in the school is PARCC ready; teacher laptops are outdated and have no video capability; some teachers do not have a laptop to accompany equipment in their classrooms.

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| **Equipment** | **#** |
| Lenovo Netbooks | 25 |
| Dell 430 Student subnotebook laptops | 25 |
| Preschool K-2 Ipads | 20 |
| Mimio Smartboards | 21 |
| Avermedia Doc Cams | 22 |
| Student Response Devices | 0 |

***Internet****: 16mbps (for entire LEA)* | 1. **21stCentury Technology Comprehensive Needs Assessments, Induction Training and Technology Integration & STEM Curriculum Development Training.** Determine strengths and weaknesses of teachers and coaches with regard to technology proficiency, integration of technology, incorporating technology when designing STEM activities and lessons, and preparing students for online assessments (PARCC). | 1. **Comprehensive Needs Assessment – Technology**. Schedule and administer the online Teacher Proficiency Assessment, and Teacher Comfort Measure to determine areas of need for teachers.2. **Teacher Technology Induction Training.** Design and schedule Technology Immersion training prior to the beginning of the school year for new teachers and principals that includes the use of technology and equipment in the classroom; expectations for technology integration; technology integration coaching model; and expectations and policies regarding equipment, active participation in Communities of Practice (active online professional learning) at the school, district and out-of-district levels. | **Planning Phase** January 2013 |
| **Planning Phase**March – June 2013**Implementation Phase**August 2013 |
| 3. **Online Courses, Webinars, Training: on-site/off-site.** Create a list of course and trainings scheduled for the 2013-2014 school year for teachers to register for (determine number of required trainings based on the Teacher Comfort Measure and Teacher Proficiency Assessment; incorporate face-to-face training with regard to courses and trainings available online (e.,g., ISTE’s courses, classes and webinars). | **Planning Phase**March – April 2013 |
| 4. Ensure **ISTE Institution Membership** is in place for the school site.  | February 2013 |
| 5. **Technology Integration Coach and STEM Curriculum Developer Training.** Schedule and register Technology Integration Coach and STEM Curriculum Developer to attend trainings on technology integration, effective coaching, STEM curriculum development and integration of technology in the classroom; and preparing students for online assessment and learning (PARCC trainings and institutes). | **Planning Phase**January – June 2013 |
|  | 6. **Principal Expectations Training.** Schedule principal training regarding expectations for a technology-rich learning environment and school based on precepts in *Technology For Learning.* | May 2013; August 2013 |
| 2. **Technology Integration Coaching and Mentoring (Ongoing, Job-Embedded).** Design a coaching and mentoring system that ensures training and support in the four essential elements of high quality professional development: face-to-face training; online learning opportunities; promotion of communities of practice; feedback and observation; and ongoing progress monitoring and evaluation within its framework. | 1. Design a Technology Integration Coach job description incorporating the professional standards provided by the International Society of Technology Education (ISTE) that includes indicators regarding Visionary Leadership; Teaching, Learning & Assessments; Digital Age Learning Environments; Professional Development & Program Evaluation; Digital Citizenship; and Content Knowledge & Professional Growth. | **Planning Phase:** Fall 2012  |
| 2. Hire an on-site Technology Integration Coach to work with on-site instructional coaches and teachers on effective teaching strategies  | **Planning Phase:**January 2013 |
| 3. Develop a coaching and mentoring model that integrates technology, is practiced consistently; prepares students for online learning and assessing; technology literacy for students and teachers; facilitation of training sessions regarding online communities of practice. | **Planning Phase:****February – June 2013****Implementation Phase:****August 2013 – June 2014** |
| 4. Design and schedule a program of job-embedded professional development on the integration and use of technology in the classroom and as an integral component in lesson plan design and evaluation. | **Planning Phase:** March 2013 – June 2013; **Implementation Phase** August 2013 – June 2014 |
| 3. **Curriculum Alignment With ACCSS (Arizona Common Core State Standards); NETS; STEM Development.** | 1. Design a STEM Curriculum Developer job description that includes responsibilities regarding ACCSS, NETS embedding; working with grade level teachers on development of STEM activities that integrates technology. | **Planning Phase:** Fall 2012 |
|  | 2. Hire an on-site STEM Curriculum Developer to work with District Curriculum Team, instructional coaches and Technology Integration Coaches  | **Planning Phase:**January 2013 |
|  | 3. Design presentations for principal, coaches and teachers regarding ACCSS, NETS, PARCC and STEM units and lessons.  | **Planning Phase:**March 2013 |
| 4. Work with coaches and teachers to implement STEM activities; provide collaborative time with teachers for practice, feedback and reflection and make adjustments to activities. | **Implementation Phase:** August 2013 – June 2014 |
| 5. Work with Technology Integration Coach to place developed activities on Moodle site. | **Implementation Phase:** August 2013 – June 2014 |
| 4. **Student Technology Literacy Skills.** Determine strengths and weaknesses of student technology skills in grades 3-6; design a series of activities to improve their technology proficiency skills in preparation for online assessment (PARCC). | 1. Schedule and administer LEA-designed Student Technology Literacy Skills assessment to determine readiness for ADE’s online student literacy assessment. | **Planning Phase:** May 2013 |
| 2. Cluster students by proficiency level and readiness level; schedule students who are ready to take ADE’s Student Literacy Skills Assessment and analyze results. | **Planning Phase:**May – July 2013 |
| 3. Design series of activities in collaboration with teachers to be used with students to increase their technology skills proficiency. | **Planning Phase:**May – July 2013**Implementation:****Aug 2013 – June 2014** |
|  | 5. **Technology Integration Professional Development Monitoring and Evaluation.** Using tools provided by ADE, design a monitoring and evaluation system to be used by administrators and coaches to measure progress of teachers with technology integration proficiency and skills. | 1. Provide training on the use of the Technology Integration Matrix tools (ADE) for classroom and the observation tool for administrators. | **Planning Phase:**July 2013**Implementation for Principals:** Aug 2013 – June 2014 |
| 2. Devise a schedule of regular progress monitoring and a semi-annual evaluation of the PD model’s effectiveness with regard to teacher integration of technology in their classrooms and the use of effective strategies using technology in lessons that support Arizona Common Core and STEM lessons and activities. Base evaluation tools on ISTE.NETS professional standards for coaches, administrators, teachers and students. | **Planning Phase:**August 2013**Implementation**September 2013 – June 2014 |
| 3. Include performance indicators of the professional standards (ISTE.NETS) for administrators, coaches, teachers on monitoring and evaluation tools designed by the school and/or LEA; collaborate with instructional coaches and principal. | **Planning Phase:** February – March 2013**Implementation:**August 2013 – June 2014 |
| **Building Capacity: Describe how the above strategies will build capacity within the system.** |
| * As a support to High Quality Professional Development, the LEA will include a Technology Integration Induction Training segment in its Pre-service Calendar for new hires; the induction will include teachers taking the Proficiency Needs Assessment and Teacher Comfort Measure, as well as introducing the Technology Integration Matrix for Classrooms
* Teams, coaches, teachers and committees will self-assess using the key implementation factors listed *Technology for Learning: A Guidebook for Change* as well as part of the monitoring and evaluation tool designed by the school and LEA technology integration coaches and mentors.
* All PD topics, hand-outs and power points, as well as videos of in-class integration of technology, will be developed by the Technology Integration, Instructional and Curriculum coaches to be placed on the school and LEA Moodle sites for teachers to use as resources.
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| **Sustainability: Describe steps needed to sustain ongoing job-embedded professional development.** |
| * By training a cadre of teachers in effective use of technology in the classroom, the school and LEA will be building a group of trainers and coaches/mentors of teachers (new hires and veterans) as they move through the Technology Integration Matrix for Classrooms from Developing to Full Integration.
* All PD topics, hand-outs and power points, as well as videos of in-class integration of technology, will be developed by the Technology Integration, Instructional and Curriculum coaches to be placed on the school and LEA Moodle sites for teachers to use as resources in the future and archived on the SAN (Storage Area Network) for teachers to use as resources in the future.
* Because teachers are trained as a first-order change, and students improve their technology proficiency skills, they will move through the system from grade level to grade level, sustaining and improving their technology skill levels. This sustainable shift is second-order change.
* Increasing proficiency skills for both teachers and students will build sustainability in and of itself.
* STEM activities and units developed by STEM Curriculum Developers, coaches and teachers will be placed on the school and LEA Moodle sites and will be used as resources for future teachers.
* Building communities of practice will ensure that teachers have opportunities to engage the content, is ongoing, extends into the classroom and provides an opportunity for teachers to be part of a professional-learning community.
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| **2. Instructional and Technical Support** |
| **Questions to consideration when identifying the school’s current status (baseline) with Instructional and Technical Support?\*** |
| ***What instructional support is currently available for teachers and students?*** * There are two instructional coaches on staff, one funded by Title I and one by SIG funds (due to end June 2014), who provide best practices in instructional; there is no strong technology integration combined with the instructional professional development at this time.
* An LEA Technology Integration Specialist is currently scheduled to be on-site once a week to provide support and training regarding technology integration in the classroom; there are two IT staff members for 1,986 K-12 students and 127 teachers in the district. .
* Online classes through the district’s Moodle site is available; periodic training is conducted by publishers when support materials and software accompany curriculum.

***What technical support is currently available to assist with designing, implementing and maintaining infrastructure, hardware and use of software?*** * Currently, the Technology Department has two persons on-staff: an IT Director, an IT Assistant. They provide support through the phone, as needed, based on emails received from teachers. In addition, the IT staff regularly visits the school to provide technical support on a one-to-one basis.
* The LEA also benefits from e-rate’s Priority 1 (yearly maintenance fund) which funds contractors and consultants to support the LEA’s Technology Department. This typically translates into a 3-day on-site visit by a consultant every other week.

***What policies and procedures are in place to ensure adequate instructional and technical support?*****Instructional Support*** The IT department provides instructional support regarding software, training of software use and current technology, use of the Moodle site, which includes tips for teachers and maintenance of the Teacher Technology Handbook.
* The IT’s website includes online workshops and training regarding Email, Excel 4 Math, Classroom Newsletter set-up, Utilizing a Classroom Projector, Managing Files, Student Online research Projects (Webquests) and Internet security workshop. It also provides an online learning module on easy fixes to common problems and troubleshooting regarding printers, emails, connectivity at home; attendance.
* The Technology Handbook provides methods on how to set up projector systems, document cameras, videoconferencing, Mimio smartboards, student computer access, how to scan, and a list of teaching tools.

**Technical Support*** Teachers first contact their school-site Technology Coordinator regarding a need for instructional or technical support. If the school-site Technology Coordinator cannot address the issue, the issue is forwarded to the Technology Director through email.
* If the Technology Director determines that the issue is not a malfunction of the system, the issue is brought to the LEA Technology Integration Specialist. If the case of a system malfunction, the Technology Director will resolve it by utilizing the assistant, forwarding it to the e-rate consultant or fixing it himself.

***How are funds used to support instructional and technical support?*** The LEA provides budgets for salaries for an IT Director and one IT Assistant. The IT Department also receives support through e-rate’s yearly maintenance fund which is primarily directed towards hardware and software support. |
| ***Baseline Data*** | ***Strategies***  | ***Action Steps*** | ***Timeline*** |
| Tech Survey Results, 2010 and 2011ADE Technology Needs AssessmentIT Department Inventory ListSpring 2012 AIMS Results(*see page 8 for details)* | 1 .**Instructional Support.** Provide instructional support to assist teachers with the integration of technology in the classroom by implementing a coaching and mentoring model at the school site. | 1. Hire and train a site-based **Technology Literacy Coach** to work with teachers, administrators and other instructional coaches on the development of effective instructional support strategies that relates to technology integration. | **Planning Phase:** January 2013 – May 2013 |
| Tech Survey Results, 2010 and 2011ADE Technology Needs AssessmentIT Department Inventory ListSpring 2012 AIMS Results(*see page 8 for details)* | 2. Hire and train a site-based **STEM Curriculum Developer** to work with the Technology Literacy Coach and instructional coaches on the development of STEM activities that incorporates 21st century tools and technologies into the unit/lesson. | **Planning Phase:**January 2013 – May 2013 |
| 3. Provide frequent ongoing job-embedded professional development opportunities for teachers to help students prepare for online learning and assessing; for teachers and students to become global digital citizens; for teachers to integrate technology and effective strategies in their lesson and unit planning when aligning to ACCSS and STEM. | **Planning Phase:** February 2013 – May 2013**Implementation Phase: August 2013 – June 2014** |
| 4. Develop video clips that model effective technology integration in the classroom (primary, elementary, intermediate, secondary) that correlates to the Technology Integration Matrix for Classrooms available on the Arizona K12 Center website. | **Planning Phase:**June 2013 – July 2013**Implementation Phase:** August 2013 – June 2014 |
| 5. Provide training to teachers on 21st century tools and equipment being purchased for use by teachers and students (including student laptops and IPads). | **Planning Phase:** February 2013 – April 2013**Implementation Phase:**June 2013 – June 2014 |
| 6. Facilitate a team of teachers and coaches to review apps for IPads; submit list for recommendations for purchase. | **Planning Phase:** March 2013 – May 2013 |
| 2. **Technical Support.** Ensure adequate staff are on hand to provide timely and efficient technical support so that equipment is functioning properly and optimally and that teachers and students have basic troubleshooting abilities; consistent and reliable access to the Internet. | 1. Create an LEA Technical Support Help Desk that is available to teachers on an immediate and ongoing basis.  | **Planning Phase:** February 2013 |
| 2. Design a flowchart and list of Frequently Asked Questions for Help Desk operator to use when answering questions from teachers regarding equipment  | **Plannng Phase:** March 2013 – May 2013 |
| 3. Technology Integration Coach and IT Department will design a series of troubleshooting workshops to instruct teachers how to troubleshoot basic problems. | **Planning Phase:** May 2013 – August 2013**Implementation Phase:** August 2013 – June 2014 |
|  |  | 4. Technology Integration Coach and the IT Department will design a series of troubleshooting workshops for students on how to troubleshoot basic problems. | **Planning Phase:** May 2013 – August 2013**Implementation Phase:**August 2013-June 2014 |
| 3. **Restructuring School Leadership Team.** Review current teams and staff members who are part of LEA-level teams (e.g., RTI, District Curriculum) and consider restructuring and consolidation of goals so that all stakeholders are moving towards ACCSS alignment; STEM development; continued PD in best practices instructional strategies, and embedding technology integration across the school (teachers and students). | 1. Include Technology Integration Coach and STEM Curriculum Developer on School Leadership Team. | **Implementation Phase: When TIC and STEM hired** |
| 2. Determine stakeholders for restructured team: instructional coaches; Tech Integration Coach; STEM Curriculum Developer; and representatives of District Curriculum Team. | **Planning Phase:** March 2013 – May 2013**Implementation Phase: July 2013 – June 2014** |
| 3. Identify additional members of the team. | **Planning Phase:** March 2013 |
| 4. Determine agendas (e.g., how to consolidate and ensure all entities are moving towards preparation for online assessment, alignment with ACCSS in curriculum; development of STEM activities; continued PD in best practices (instructional, technology integration, classroom management, etc.) | **Planning Phase:** March 2013 |
| **Building Capacity: Describe how the above strategies will build capacity within the system.** |
| * The ***FAQ and Protocol Flowchart*** will eliminate a portion of the questions and needs from teachers as they will address their needs and wants.
* The ***Technical Support Help Desk*** will eliminate a large portion of teacher requests and issues that are basic in nature which the Technology Director and assistant currently deal with on a daily basis. This also will provide more efficient service to the teachers; i.e., resolution to problems and challenges will be addressed more quickly. This will free up tine for the Technology Director to respond more proactively and focus on improving the efficiency of his department. The hope is that this position will be sustained through alternative funding sources after the grant is over.
* Restructuring leadership team will ensure regular communication takes place among stakeholders on LEA Curriculum Team (vertical alignment with ACCSS), Technology Integration, and embedding of NETS standards in curriculum as well as discussing ongoing challenges in training teachers and students in the use of 21st century tools and equipment in daily instruction as well as leveraging resources
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| **Sustainability: Describe steps needed to sustain instructional and technical support.** |
| * Ensure the FAQ and flowchart are in place for use after the life of the grant (includes review and updates)
* Encourage the LEA to maintain the Tech Support Help Desk position by supplying the LEA with data that supports the use of the Tech Support Help Desk as a means of supporting teachers in the use of 21st century tools and technology in their classrooms and preparation for student online assessment (PARCC).
* Encourage the principal to collaborate and partner in the use of Title I funds to maintain the LEA Technology Integration Specialist position.
* Encourage the principal to set aside funds regarding continued development and improvement of the school Moodle site.
* Workshops and training classes are made available on the school and LEA Moodle sites to ensure consistency and quality of instruction is maintained.
* The Troubleshooting Series will be on file for use with future groups of teachers and students.
* Using instructional coaches, curriculum team, integration coaches and specialists, a Student Work Portfolio system can be developed that houses a K-12 Career Work Portfolio for each student in the school and LEA
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| **3. Infrastructure and Hardware** |
| **Questions to consideration when identifying the school’s current status (baseline) with Infrastructure and hardware?\*** |
| ***What are our current networking capabilities (connectivity and access points, charging and storing needs)?*** * The LEA currently has good internal network and wireless coverage/capability; however, the current networking system that was set up six years ago does not allow the connection of IPads and non-Windows devices to be securely connected and managed.
* Internet connection is restricted by physical and geographical challenges of the LEA (remote; rural; mountainous).
* Multiple government agencies present challenges on a reservation not normally faced in school districts located off the reservation.
* Most infrastructure devices (servers, switching equipment) are a minimum of six years old and need to be replaced to support reliable 1:1 computing capabilities; there is a dire need to upgrade infrastructure in order to ensure connection to the Internet, local servers and to move large amounts of data within the school and LEA quickly.
* In order to increase universal student access, several upgrades are necessary in the following areas: SAN, LAN, VM licensing, TeamViewer, Moodle, bandwidth (currently at 16mbps; leveraging e-rate will provide an additional 40mbps.

 ***How close are we to 1:1 computing capabilities?*** * The school was at a 3:1 computing level a couple years ago.
* Many computing devices are 6 to 9 years old.
* The networking and computing (student and teacher file storages and local servers) infrastructure, is also six years old.
* While the LEA / school can acquire fast internal bandwidth using e-rate funds, it is not the case for internet access. The geographical location of the school constitutes a serious problem.
* Technological and logistical support is needed. Even if student’s individual laptops are functioning as Thin clients, such large numbers of computing devices will create an unprecedented demand on the current LEA technology department and will cause substantial logistical issues.
* Connectivity (including wireless security), software for productivity, analysis, and digital content, deice management and tracking and filtering software needs to be upgraded.

***What policies and procedures are in place to ensure adequate infrastructure and hardware?*** * Leveraging current e-rate will provide upgrading and instrumental in the management of network devices.
* Current board policies and procedures are in need of revision; current board policy is in place (IJND, IJND-R and IJNB) regarding appropriate use of Electronic Information Services as required by the Children’s Internet Protection Act (filtering, Internet Safety, Education, and Supervision).

***How are funds used to support infrastructure and hardware?**** Leveraging e-rate and M&O budget.
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| **Baseline Data** | **Strategies** | **Action Steps** | **Timeline** |
| LEA IT Department Inventory; LEA Tech Plan; e-rate application; school budget; LEA AFR(*see page 8 for details)*No equipment in the school is PARCC ready; teacher laptops are outdated and have no video capability; some teachers do not have a laptop to accompany equipment in their classrooms.

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| **Equipment** | **#** |
| Lenovo Netbooks | 25 |
| Dell 430 Student subnotebook laptops | 25 |
| Preschool K-2 Ipads | 20 |
| Mimio Smartboards | 21 |
| Avermedia Doc Cams | 22 |
| Student Response Devices | 0 |

***Internet****: 16mbps (for entire LEA* | **Internet Access.** Increase Internet access to the LEA from 16 mbps to 60mpbs. | 1.**Reduce annual phone bill** by switching phone system to SIP trunk technology; use savings towards Internet connectivity. | January 2013 – February 2013 |
| 2. Work with current internet provider to **switch sub-carrier** to a less costly one. | January 2013 – February 2013 |
| **Bandwidth.** Manage available Internet bandwidth; prioritize utilization; enhance access to digital content. | 1.**Upgrade current firewall and web filter** to new virtual appliance (manage bandwidth and web filtering) | January 2013 – February 2013 |
| 2.**Upgrade (2) LEA servers** to run virtual infrastructure; provide sufficient processing power and memory. | January 2013 – February 2013 |
| 3.**Upgrade (2) VMWare licensing** so virtual infrastructure can be fully utilized (necessary for compatability). | January 2013 – February 2013 |
| 4.Acquire **licensing for Discovery Streaming**; hosted within the local network | January 2013 – February 2013 |
| 5.**Expand Moodle server** abilities by connection to local video streaming servers and SharePoint servers (allows teachers to locally store videos and multimedia content for students to access; allows students to post multimedia content within local network | January 2013 – February 2013 |
| 6. **Purchase technology consulting** to interconnect Moodle and SharePoint servers | February 2013 – October 2013. |
| 7. **Purchase technology training** on interconnections of expanded Moodle, Sharepoint and upgrade of servers (school and district) | February 2013 – October 2013 |
|  |  | 8.Upgrade multiple **Windows 2008** servers  | January 2013 – February 2013 |
| 9.**Upgrade LEA local storage system** (SAN, DR SAN) to accommodate space required for Discovery Streaming and Moodle server expansions. | January 2013 – February 2013 |
| **Computing Devices.** Acquire and deploy individual computing devices (with software) to be used by students and teachers. | 1.Purchase **laptop** **carts** of 30 Windows-based tablets with keyboard; 13-inch screen; solid state drives; 8-hour battery life; wifi camera. | January 2013 – February 2013 |
| 2. Purchase (3) **iPad cart**s to house 30 iPads each. | January 2013 – February 2013 |
| 3.**IPads.** Purchase and configuration of 73 IPads (73) IPad covers, and three IPad carts for use with students in the classroom. | January 2013 – February 2013 |
| 4. **Student & Teacher Laptops.** Purchase and configuration of student (136)and (22) teacher laptops to provide individual computing capability to provide universal access to the Internet, enhance learning and prepare for online assessment (PARCC). | January 2013 – February 2013 |
| 5. **MacBook Pro 5.** .25 purchase of MacBook Pro 5 at LEA level (school already has a MacBook) to manage iPads. | January 2013 – February 2013 |
| 6. Purchase **management software**/virtual servers to track, maintain and manage student laptop tablets and iPads. | January 2013 – February 2013 |
|  | 7. Purchase of **MS Office Communicators and Widows licensing** for the Windows-based devices. | January 2013 – February 2013 |
|  |  | 8. Purchase and install software for devices that allows teachers and students to create multimedia products (**Articulate Storyline and ISPRING Suite**). | January 2013 – February 2013 |
| 6. Provide staff with the ability to collaborate virtually within or outside the school network (Tea**mViewer update**) | January 2013 – February 2013 |
| 7. **Upgrade current Windows terminal client infrastructure** (new devices will run as terminal clients to manage effectively with a small IT staff) | January 2013 – February 2013 |
| 8. **Upgrade school local storage area network (SAN)** to accommodate needs of student and teacher laptops and local Moodle servers (students and teachers save their files on local SAN) | January 2013 – February 2013 |
| 9**.Update district back-up SAN** to provide reliability of upgrade of school local storage area network (SAN). | January 2013 – February 2013 |
| 10**.Upgrade school network and district office network infrastructure** to accommodate wireless access to the iPads using e-rate fund (non-recurring ) | January 2013 – February 2013 |
| 11.P**urchase adequate training for IT support** staff and school Technology staff to improve skills and knowledge of the new network and server environments that will support all the new devices. | February 2013 – October 2013 |
|  | **Multimedia Support.** Provide classrooms and libraries with multimedia support. | 1.**Purchase and replace old projectors** and teacher laptops so they can be used with an interactive whiteboard (e.g., Mimio). | January 2013 – February 2013 |
|  | 2, **Upgrade classrooms and libraries that do not have multimedia support**; provide teacher with a laptop that can be used with an interactive board (e.g., Mimio). | January 2013 – February 2013 |
| **Policies.** Ensure policies regarding Technology Use & Safety, are updated to include increased levels of access that occurs in 1:1 learning environments. | 1.**Review current policy** regarding Technology Use and Safety and include stakeholders in the review. Use Chapter 3 of *Technology For Learning: A Guidebook For Change* as a reference. (School Leadership; Parent Advisory Councils; LEA administrators) | March 2013 – July 2013 |
| 2. When updating policy, **include how damage or theft** of the purchased individual computing devices will be handled. | March 2013 – July 2013 |
| 3. **Ensure inclusion of Internet Safety & Choice and digital Citizenship in** the updated policy. | March 2013 – July 2013 |
| 4. **Engage stakeholders** in reviewing and editing final draft of updated policy. | March 2013 – July 2013 |
| 5. **Submit finalized updated policy** to the LEA’s Governing Board for review/approval. | March 2013 – July 2013 |

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| **Building Capacity: Describe how the above strategies will build capacity within the system.** |
| * Upgrades will provide a system that builds universal access for 1:1 learning and preparation for online assessment.
* Substantial leveraging of the e-rate application is focused on supporting upgrading and maintenance of system to accommodate 1:1 learning, increase of individual computing devices, and interactive learning and preparation for online assessment (PARCC).
 |
| **Sustainability: Describe steps needed to maintain and sustain infrastructure and hardware.** |
| * We have reached a plateau with our current technology system with a series of first-order changes. The improvements in the system will allow the district to be in position for second-order change, universal Internet access with students as the consumers and teachers as guides to more effective and efficient learning.
* Secondary change by its very nature creates systemic change; difficult to extinguish once systemically in place.
 |

\*For a more thorough evaluation of baseline information refer to the following resources:

* *The Technology Factor: Nine Keys to Student Achievement and Cost-Effectiveness*; Project Red, 2010

*Technology for Learning: A Guidebook for Change;* Tech and Learning

**Part 4: Evaluation Matrix**

Grant awards will have two (2) separate evaluation components. One is an external evaluation that will be funded through a 10% budget holdback for assessment and evaluation (more information is available below in the section on funding). The other evaluation component is an internal grant evaluation and accountability plan. Each applicant must include an internal evaluation and accountability plan to identify baseline data, major strategies being used and actions that will be taken to measure the progress made towards the two (2) absolute priorities. *(See Part 4 of the grant application for additional information.)*

Using the strategies identified in Part 3, complete the evaluation matrix below. Add rows as needed.

| **A. Strategies**  | **B. Target Benchmarks** | **C. Proposed Ongoing Evaluation Process** | **D. Data Sources for Ongoing Evaluation & Program Reporting** | **E. Team Member(s) Responsible** |
| --- | --- | --- | --- | --- |
| **HQPD: 21stCentury Technology Comprehensive Needs Assessment and Training**  | Needs Assessments | Teacher Proficiency Needs Assessment; Teacher Comfort Measure; Technology Integration Matrix; Professional Standards (ISTE.NETS) for Administrators, Coaches, Teachers; sign-in sheets; registration copies; copies of hand-outs and training materials; materials placed on school and LEA Moodle sites |  Results of Needs Assessments | LEA Technology Integration Coach maintains a documentation file and ensures placement on Moodle of all pertinent materials and resources  |
| Induction Training | Sign-in sheets; training materials |
| Online Courses, Webinars, Workshops, Trainings | Registration copies; internal PD scheduled based on materials presented in courses, classes, workshops |
| Technology Integration/STEM Curriculum Developer Training | Registration copies; materials and hand-outs from training; internal PD scheduled based on training |
| ***Form an LEA Technology Integration Team*** | ***Member list; agendas and summaries on file in ALEAT Filing Cabinet*** |  |
| **HQPD: Technology Integration Coaching and Modeling (Ongoing, Job-Embedded** | Technology Integration Coach Job Description | Job description created and used for hiring Technology Integration Coach | Job description on file | Federal Programs Director; HR Director; Superintendent; LEA Leadership Team |
| Hire School Site Technology Integration Coach | List of candidates and interview questions | Technology Integration Coach hired | Federal Programs; HR; Superintendent; LEA Governing Board |
| *Hire LEA Technology integration Specialist* | *List of candidates and interview questions* | *LEA Technology Integration Specialist hired* | *Federal Programs; HR; Superintendent; Governing Board* |
| Technology Integration professional development series developed and scheduled | Teacher Comfort Measure; Teacher Proficiency Needs Assessment; Technology Integration Matrix – Classroom; Technology Integration Observation Tool | Results of assessments on file and used when developing on-site and online workshops and trainings; sign-up sheets; materials and hand-outs on Moodle sites | LEA and on-site Technology Integration coaches; Instructional Coaches; STEM Curriculum Developers |
| Hire STEM Curriculum Developer | Integration of technology in STEM activities, lessons and units developed; embedding of NETS in LEA Curriculum maps; collaboration with Technology Integration Coaches | STEM lessons and activities developed and on LEA and school Moodle sites; curriculum maps embedded with NETS | STEM Curriculum Developer; LEA Technology Integration Coach |
|  | Principal Induction Trainings | Agenda; presentation; hand-outs and schedule in place | Evaluations on file; hand-outs and materials on file | LEA Technology and School Technology Integration Coaches |
| **HQPD: Student Technology Literacy Skills** | Schedule LEA-designed Tech Literacy Skills | Summary of results  | Summary sheets on file | School Site Technology Integration Coach |
| Cluster students by proficiency level | Grouping based on Developing, Approaching, Meeting | Summary sheets on file | School Site Technology Integration Coach |
| Administer ADE Student Literacy Skills to students who are ready | Schedule and student list created | Results are summarized and analyzed and on file with School Site Technology Integration Coach | School Site Technology Integration Coach; LEA Technology Integration Coach |
| Design activities for students to increase proficiency | List of activities developed and teachers collaborate with Tech Integration Coach on implementation with students | Activities are complete and available on Moodle site for access by teachers  | Technology Integration Team |
| **HQPD:** . **Technology Integration PD, Monitoring and Evaluation.**  | Training – Technology Integration Matrix Tools | Technology Integration Matrix LEA, School and Classroom; Observation Tool | Completed matrices and observations made and on file; results and summaries uploaded to ALEAT Filing Cabinet | LEA and On-site Technology Integration Coach |
| Progress Monitoring and Evaluation | Technology Integration Matrix Observation Tool; feedback and observation protocol | Tools; feedback and observation protocols on file (grade level, classroom); summaries uploaded to ALEAT Filing Cabinet | LEA and On-Site Technology Integration Coach |
| Professional standards: ISTE.NETS for Administrators, Coaches, Teachers and Students | Design a matrix for teachers, coaches and administrators to complete using the ISTE.NETS standards to determine where each individual is on an LEA-designed matrix (Developing, Approaching, Meets, Exceeds) | Completed self-assessment results on file at school site and LEA | LEA and On-Site Technology Integration Coaches |
| **ITS: Instructional Support.**  | Hire Technology Integration Coach | Technology Integration Coach on staff; feedback/observation  | Observation protocols, agendas for trainings on file | Federal Programs; HR; Superintendent |
| Hire STEM Curriculum Developer | STEM Curriculum Developer on staff; STEM lessons and units aligned with ACCS/NETS on file | Completed STEM lessons and units uploaded onto school and LEA Moodle sites | District Curriculum Team; STEM Developers |
| Design and implement PD trainings, workshops, 1:1 coaching and mentoring | Activities and trainings outlined on a Technology Integration PD calendar | Protocols; materials; hand-outs on file in ALEAT Filing Cabinet and on-site | Technology Integration Coach; STEM Developer; LEA Integration Coach |
| Develop video clips that model TI | Prioritize list of video clips to be made | Completed video clips of use and integration of technology on Moodle site | Tech Integration Coach; STEM Developer; instructional coaches |
| List and offer student online workshops and trainings regarding digital citizenship, using technology to enhance projects, safety and universal access | List completed; Digital Citizenship online course offered to students grades 6-HS; student literacy assessment scheduled and administered to students in grades 5, 8, and 10 to determine growth in literacy and use of technology | Collaborative effort: Technology Integration Team; STEM Curriculum Developers; Instructional Coaches; District Curriculum Team regarding development of list of grade and age appropriate workshops offered online | Technology Integration Team; STEM Curriculum Developers; LEA Technology Integration Coach; School Technology Integration Coach |
| Training to teachers on 21st century classroom and equipment | Series of trainings developed and offered to teachers | Demonstration of integration of technology in the classroom improved by using Technology Integration Matrix – Classroom | Technology Integration Coach |
| **ITS: Technical Support** | Hire LEA Tech Support Help Desk staff member | Support desk job description completed; Interviews conducted and candidate selected | Job description on file with HR; hiring complete; candidate approved by Governing board | IT Department; Federal Programs; HR Director |
| Troubleshooting FAQ and flowchart development. | Design an FAQ Fact Sheet for distribution to school sites; develop a flowchart of troubleshooting possibilities | Completed FAQ sheet at school sites and on school Moodle site; flow chart complete and on file with site-based Tech Support rep (certified addendum) | IT Department; LEA Integration Coach |
| Troubleshooting workshops and trainings, **teachers** | Design a series of hands-on troubleshooting workshops and trainings for teachers and students based on the FAQ Fact Sheet and flowchart | List of workshops available on Moodle site; sign-up sheets on file; an LEA-designed pre/post assessment designed and used for teachers and students (grade level appropriate) using basic troubleshooting skills desired by the IT Department and classroom teaches | IT Department; Tech Support Rep; School Technology Integration Coach |
| Troubleshooting workshops and trainings, **students** |
| Tech Rep job description | Design/update job description for certified addendum position as Tech Support Rep for school site; interview candidates  | Job description and candidate selected | Principal; IT Director; LEA Technology Integration Coach  |
| **ISH:** **Hardware** | Upgrades | Upgrades SAN, servers, Sharepoint Server, and imaging servers; Moodle; VMware | System upgrades complete; connectivity improved | IT Department |
| Licensing | Update licensing for VM and MS; Discovery Streaming complete | Updated licensing provides improved accessibility for teachers and students |
| Management Software | Upgrade ISpring Suite Articulate Storyline MacBook Pro 5; TeamViewer to provide accessibility and access tools that will enhance student learning and preparation for online assessment; and assist in development of simulations and STEM activities correlated to ACCSS and NETS | Upgrades in place; STEM lessons and units being developed that includes the use of upgraded software |
| E-Rate | 10% non-recurring expenditure to replace switching equipment: LAN and Wifi in order to support multiple mobile devices. | Improved LAN and Wifi that will support multiple devices |
| IT Training | Schedule IT training regarding upgrades for: servers, switches, Moodle and ISpring Suite and TeamViewer  | Training scheduled and conducted; hand-outs, manuals and materials on file with IT Department |
| IT Consulting | Schedule consulting/ professional services regarding upgrades related SAN, Moodle/ Sharepoint Servers; and MS servers | Consultant/professional services scheduled and materials on file with IT Department |
| **ISH: Individual Computing Devices** | IPads | Ipads, IPad covers, and IPad carts ordered and delivered to school site | Equipment purchased and on site; evidence of trainings completed by teachers and students before distribution to classrooms (see below) | Site Technology Integration Coach; School Tech Support Rep; IT Department |
| Student & Teacher Laptops | Student and teacher laptops and carts ordered and delivered to school site |
| Projectors | Projectors ordered and delivered to school site |
| ICD Training, Students and Teachers | Training scheduled and delivered to students and teachers on the use of individual computing devices as they are delivered to the school site | Sign-up sheets on file of students and teachers who have completed in-service on the use of individual computing devices | Site Technology Integration Coach; School Tech Support Rep; IT Department |
| **ISH: Digital Content** | Discovery Streaming and Training | Licensing updated for Discovery Streaming | Update complete and training conducted with teachers on the use of Discovery Streaming in the classroom | Site Technology Integration Coach; STEM Curriculum Developer |
| Moodle/Sharepoint and Training | Upgrade of Moodle server complete and training scheduled for IT Department on the upgrades | Upgrades and IT training complete; PD scheduled for teachers on the new features of Moodle | Tech Integration Coach; LEA Tech Integration Coach |
| ISpring Suite and Training | Upgrade allows students and teachers to create products and prepare students for online assessment; training schedules for teachers  | Upgrades complete; training for teachers complete; sign-in sheets available; materials and hand-outs on file | IT Department;  |
| **ISH: Infrastructure** | Bandwidth | Improve bandwidth from 16mb to 60mb | Leveraging e-rate application allows for increase | IT Department |
| TeamViewer/ Videoconferencing and training | Upgrade current TeamViewer to improve videoconferencing capabilities (collaboration, virtual trips in-school, in-district and globally). | Upgrades complete; PD scheduled for teachers and coaches on the use of TeamView videoconferencing for classrooms and professional learning communities | IT Department; LEA Technology Integration coach; School Site Technology Integration Coach |
| **ISH: Policies** | Review | Schedule a review and update of the LEA’s current technology policy using Chapter 3 of *Technology For Learning: A Guidebook for Change*  so that it reflects changes in technology use and access | Schedule set and agendas of meetings held on file; participation list on file | LEA Leadership Team; IT Department; Technology Integration Coaches; ADE Program Specialists |
| **ISH: Policies** | Update: Stakeholder | Ensure collaboration by stakeholders in the updating of the technology policy (parents, teachers, administrators; students (secondary only) | Agendas and sign-in sheets for stakeholder meetings on file at LEA and at school site |
| Update: Damage & Theft | Ensure the issue of how to address damage and theft of individual computing devices is reviewed by stakeholders | The revised updated policy includes a section on addressing damage and theft of individual computing devices. |
| Internet Safety & Choice | Ensure inclusion of internet safety and choice in updated policy | A section in the updated technology policy includes Internet safety & Choice |
| Governing Board approval | Finalized draft of updated technology policy ready for submission to Governing Board for approval. | Finalized updated technology policy for teachers and students on file in LEA office | Superintendent; Governing Board |

**Part 5: Budget**

Complete forms: 5.a *Budget Details* and 5.b *Budget Descriptions* for this section.

**Part 5a: Budget Details Form**

 **Year 1**

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| STATE AND FEDERAL PROGRAM **FINANCIAL BUDGET/PAYMENT REPORT** | [ x ] Application [ ] ADE Revisions[ ] Amendment [ ] Number | **INSTRUCTIONS:** Complete and submit with application |
| **A. PROJECT IDENTIFICATION FOR THE BUDGET PERIOD** |  | TO |  |
| 1. Applicant Agency | 2. County | 3. CTD No. | 4. Project No. |
| Whiteriver Unified School District #20 | Navajo | 090220 |  |
| 5. School Improvement Grant (1003g) | 6. Date Submitted to ADE | 7. Prepared by | Brian Patrick; Pierre Dehombreux; Bruce Goode |
| Cradleboard Elementary School | 10/12/2012 |  Phone No. | (928) 338-2028 |
| **B. PROJECT BUDGET BY LINE ITEM** |  E-mail address: bpatrick@wusd.us ; pdehombreux@wusd.us; bgoode@wusd.us  |

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| --- | --- | --- | --- |
| FUNCTION | OBJCODE | DISCRETIONARY GRANT FUNDING | OTHER FUNDING (ALSO INCLUDE SOURCE OF FUNDING AMOUNT) |
|  **Instruction 1000** |  |  |
| 10. Salaries | 6100 |  |  |
| 11. Employee Benefits | 6200 |  |  |
| 12. Purchased Professional Services | 6300 |  |  |
| 13.. Purchased Property Services | 6400 |  |  |
| 14. Other Purchased Services | 6500 |  |  |
| 15. Supplies | 6600 | $ 13,824.50 |  |
| 16. Other Expenses | 6800 |  |  |
| **Support Services 2100, 2200, 2600-2900** |  |  |
| 17. Salaries | 6100 | $253,706.25 |  |
| 18. Employee Benefits | 6200 | $72,360.16 |  |
| 19. Purchased Professional Services | 6300 | $125,195.44 |  |
| 20.. Purchased Property Services | 6400 |  |  |
| 21. Other Purchased Services | 6500 |  |  |
| 22. Supplies | 6600 | $ 33,043.52 |  |
| 23. Other Expenses | 6800 | $ 1,299.00 |  |
| **Support Services-Admin 2300, 2400, 2500** |  |  |
| 24. Salaries | 6100 |  |  |
| 25. Employee Benefits | 6200 |  |  |
| 26. Purchased Professional Services | 6300 |  |  |
| 27.. Purchased Property Services | 6400 | $ 61,344.26 |  |
| 28. Other Purchased Services | 6500 |  |  |
| 29. Supplies | 6600 |  |   |
| 30. Other Expenses | 6800 |  |  |
| **Operation of Non-Instructional Services 3000** |  |  |
| 31. Salaries | 6100 |  |  |
| 32. Employee Benefits | 6200 |  |  |
| 33. Purchased Professional Services | 6300 |  |  |
| 34.. Purchased Property Services | 6400 |  |  |
| 35. Other Purchased Services | 6500 |  |  |
| 36. Supplies | 6600 |  |  |
| 37. Other Expenses | 6800 |  |  |
| 38. **Project Subtotal** |  | **$561,070.11** |  |
| 39. Indirect Cost (\_\_\_% x line 38) 6910 | $ 44,887.57 |  |
|  **Capital Outlay** |  |  |  |
| 40. Property (School Districts Only) | 6700 | $536,866.66 |  |
| 41. Fixed Assets (Charter Schools Only) | 0180 |  |  |
| 42. **Project Totals** |  | **$1,142,824.34** |  |
| 43. 5% ADE Holdback for Assessment/Evaluation |  | $ 60,148.66 | 5% set aside |

**Part 5b: Budget Description Form**

***NOTE:*** *Categorize capital outlay items according to their location. Example: District office, specific school name, etc.*

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| 1. Applicant Agency

***Whiteriver Unified School District #20*** – Cradleboard Elementary School | 2. Date Submitted to ADE | 1. Project No.
 |  |
| **FUNCTION AND** **OBJECT CODE** | **ITEMIZED PROJECT COSTS**When providing staff salaries, calculate and include full-time equivalencies (FTEs), do not forget et benefits. For other costs being itemized, provide rationale, if not readily apparent. List all components and price for each component**. Consult the Grants Management website’s Glossary for definitions and information about Function and Object Codes.** | **Budgeted Amount** | **Other Funding Sources** |
| **TRG1-100-1000-6611-106****TRG1-100-1000-6643-106****TRG1-100-1000-6611-106****TRG1-100-2100-6112-106****TRG1-100-2100-6112-106****TRG1-100-2100-6112-106****TRG1-100-2100-6112-106****TRG1-100-2100-6112-106****TRG1-100-2100-6112-106****TRG1-100-2100-6112-106****TRG1-100-2100-6112-106****TRG1-100-2100-6112-106****TRG1-100-2100-6200-106****TRG1-100-2100-6200-106****TRG1-100-2100-6200-106****TRG1-100-2100-6200-106****TRG1-100-2100-6200-106****TRG1-100-2100-6200-106****TRG1-100-2100-6200-106****TRG1-100-2100-6200-106****TRG1-100-2100-6200-106****TRG1-100-2100-6643-106****TRG1-100-2100-6643-106****TRG1-100-2100-6643-106****TRG1-100-2100-6643-106****TRG1-100-2200-6611-106****TRG1-100-2200-6611-106****TRG1-100-2200-6643-106****TRG1-100-2200-6643-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6360-106****TRG1-100-2200-6810-106****TRG1-100-2500-6400-106****TRG1-100-1000-6731-106****TRG1-100-1000-6731-106****TRG1-100-1000-6731-106****TRG1-100-1000-6731-106****TRG1-100-1000-6731-106****TRG1-100-2100-6731-106****TRG1-100-2200-6737-106****TRG1-100-2500-6731-106****TRG1-100-2500-6731-106****TRG1-100-2500-6731-106****TRG1-100-2500-6731-106****TRG1-100-2500-6731-106****TRG1-100-2500-6731-106****TRG1-100-2500-6731-106****TRG1-100-2500-6731-106** | **.25 of Articulate Storyline e-authoring software (assists with instructional support: allows capability of creating online training and works in conjunction with Moodle); January 2013.****Discovery Streaming 5-year licensing for Discovery Streaming Caching Server (provide students to multimedia content to support teaching and learning; provides some relief to pressures on Internet bandwidth)****Purchase of software such as keyboarding and other programs to prepare for PARCC; January – February 2013.****FTE (.25) Technology Integration Specialist $10,000 salary (6) month; January 1, 2013 through June 30, 2013.****FTE (.25) Technology Integration Specialist $20,000 salary (12)****Months; July 1, 2013 through June 30, 2014.****FTE (.25) Technology Help Desk (6) months; January 1, 2013 through June 30, 2013, $3,318.75.****FTE (.25 Technology Help Desk (12) months; July 1, 2013 through** **June 30, 2014.****FTE (1) Technology Integration Coach (TIC); Salary $32,500; (6) months; January 1, 2013 through June 30, 2013.****FTE (1) Technology Integration Coach (TIC); Salary $65,000; (12) months; July 1, 2013 through June 30, 2014.****FTE(1) STEM Curriculum Developer (SCD); (6) months; January 1, 2013 through June 30, 2013; $35,000.****FTE (1) STEM Curriculum Developer (SCD); (12) months; July 1, 2013 through June 30, 2014; $70,000.00****(3) days intensive technology training provided to teachers after contract hours ($150/day xs (25.555555556) teachers); January 2013 - August 2013.****Fringe benefits for .25 Technology Integration Specialist; (6) months; January 1, 2013, through June 30, 2013; $4,573.08****Fringe benefits for .25 Technology Integration Specialist; (12) months; July 1, 2013 through June 30, 2014; $9,146.14****Fringe benefits for .25 Technology Help Desk; (6) months; January 1, 2013, through June 30, 2013; $1,062.48****Fringe benefits for .25 Technology Help Desk (12 months); July 1, 2013 through June 30, 2014; $2,124.95****Fringe benefits for Technology Integration Coach; (6) months; January 1, 2013, through June 30, 2013; $8,662.79****Fringe benefits for Technology Integration Coach (12) months; July 1, 2013 through June 30, 2014; $17,325.85****Fringe benefits for STEM Curriculum Developer (6) months; January 1, 2013, through June 30, 2013; $9,117.00****Fringe benefits for STEM Curriculum Developer (12) months; July 1, 2013, through June 30, 2014; $18,234.****Fringe benefits for training (3) provided to teachers (25.555555556) teachers x 3 days); January 2013 – August 2013.****.25 of District VM (Virtual Machine) Licensing (increases universal student access; enables teachers to create learning products); January 2013 – February 2013.****.25 of District Data Recovery (DR) VM (Virtual Machine) Licensing (provides data recovery back-up of learning products); January 2013 – February 2013.****School VM (Virtual Machine) Licensing (increases universal student access; enables teachers to create learning products); January 2013 – February 2013.****.25 MS (Microsoft) Licensing (upgrades Windows 8; Sharepoint server; MS Communicator); January 2013 – June 2014.****Training supplies associated with STEM Curriculum Development & Training provided by the STEM Curriculum developer; January 2013 – June 2013.****Purchase of (73) iPad2 covers (@41.93 each x 73) to provide for protection from damage; January 2013 – July 2013.****.25 of ISPRING Suite (teacher- and student-created products; preparation of student online assessment); January 2013.****Upgrade of ISPRING Suite for school site (teacher- and student-created products; preparation of student online assessment.); January 2013.****.50 Consultant services to extend the year for STEM-oriented Summer Camp for K-6; (21) days, (SME and CBE will combine consultant services (57,000); $28,500 each; June 2013.****Purchase of embedded consultant services to guide/model STEM instructional strategies and formative assessment techniques; January 2013 – May 2013; (42.62) days @$1,500 a day).****.25 Consulting; upgrade of District Office Storage Area Network (DO SAN); February 2013 – February 2014.****Consulting and training of School Storage Area Network (SAN) upgrades; January 2013 – February 2013.****.25 Consulting; upgrade of Data Recovery District Office Storage Area Network (DR SAN); January 2013 – February 2013.****.25 Consulting (server upgrades) and training of District Moodle and Sharepoint Server (includes IT staff, school Tech Integration Coach and Technology Coordinator); February 2013 – October 2013.****Consulting (upgrade of server) and training of School Moodle and Sharepoint Server (includes IT staff, school Tech Integration Coach and Technology Coordinator); February 2013 – June 2013.****Consulting (upgrade of server) and training of School Moodle and Sharepoint Server (includes IT staff, school Tech Integration Coach and Technology Coordinator); July 2013 – October 2013.****.25 IT Staff Training (Instructional Technology Department); foster sustainability, reliability and minimization of downtime of the LEA network; provide training to IT staff to be less dependent on consulting for management of the network and servers; February 2013 – June 30, 2013.****.25 IT Staff Training (Instructional Technology Department); foster sustainability, reliability and minimization of downtime of the LEA network; provide training to IT staff to be less dependent on consulting for management of the network and servers; July 2013 – February 2014.****ADE-Selected External evaluator to evaluate implementation of the grant strategies and action steps through on-site visits, collection of data, and culminating evaluation report on the impact of grant activities; January 2013 through June 2013; $20,049.57****ADE-Selected External evaluator to evaluate implementation of the grant strategies and action steps through on-site visits, collection of data, and culminating evaluation report on the impact of grant activities; July 1, 2013 through June 30, 2014; $40,099.14****Institutional Premium Membership (11-member group package), International Society of Technology in Education (ISTE) that includes membership, ISTE research journals, Learning & Leading technology magazine; (11) sets NETS (National Education Technology Standards); ISTE webinar; reference books; access to ISTE’s professional network group (Cyber Café; webinars, forums, classes, training courses, resources); January 2013****.25 of 10% e-rate non-recurring charge to replace switching equipment, LAN and wifi; January 2013 – June 2013.****Purchase of (25) Viewsonic Network Projectors ($800 each x 25) for teachers to enhance student engagement and provide video and other multimedia in the classroom; January 2013 – January 2014.****Purchase of (136) student laptops (Dell XT2 @2,070.41 each x 136); January 2013 – May 2013.****Purchase of (6) Bretford Notebook/Netbook carts (@2,065.90 each x 6); January 2013 – May 2013.****Purchase of (22) DELL Latitude E6430 teacher laptops ($1,667.01 each x 22) (synched with smart boards, projectors; multimedia content to enhance student learning); January 2013 – March 2013****Purchase of (73) iPad 2 (@427.73 each x 73) for student use; January 2013 – June 2013.** **Purchase of (3) iPad2 carts (@2,794.95 each x 3) (provide mobility and storage for iPad2’s); January 2013 – July 2013****.25 of TeamViewer software upgrade (allows for global collaboration between schools, districts and other agencies); January 2013.****School Storage Area Network (SAN) upgrade (includes drives and storage space upgrades and support for schools and central functions; January 2013 – February 2013.****.25 of District Office Storage Area Network (DO SAN) upgrade; upgrade (includes drives and storage space upgrades and support for schools and central functions; January 2013 – February 2013.****.25 of District Data Recovery Storage Area Network (DR SAN) upgrade (data recovery back-up for Storage Area Network (SAN); includes drives and storage space upgrades and support for schools and central functions January 2013 – February 2013.****.25 of upgrade, (2) District Office Servers (includes upgrade of firewall); January 2013 – February 2013.****.25 of Dell Management/Imaging Server upgrade (allows for management and distribution of software to multiple devices); January 2013 – June 2013.****.25 Purchase of MacBook Pro 5 ($1,356.65 x .25 share) (management of Ipads and creation of profiles/testing before deploying to schools); January 2013 – February 2013.****Purchase of (2.25) DELL XT3+ laptops for Grant staff (2 at the school site; .25 share of laptop for LEA IT); provide portability in monitoring; connection to tablets when developing materials, coaching, mentoring, data collection, analysis) ($2,145.93 each x 2.25); January 2013****.25 Purchase of (2.25) AOCL portable LED monitor usb-powered screens for grant staff (2 at school site; .25 share for LEA IT staff); (portable monitoring; connection to tablets; coaching; mentoring; data collection; multimedia support during trainings and workshops of school and LEA staff) ($300.74 x 2.25); January 2013.** | **$349.50****$9,475.00****$9,381.52****$10,000.00****$20,000.00****$3,318.75****$6,637.50****$32,500.00****$65,000.00****$35,000.00****$70,000.00****$11,500.00****$4,573.08****$9,146.14****$1,062.48****$2,124.95****$8,662.79****$17,325.85****$9,117.00****$18,234.00****$2,160.87****$756.28****$756.28****$2,044.00****$22,525.85****$ 7,325.61****$3,060.89****$184.75****$998.00****$28,500.00****$63,931.04****$1,687.20****$6,080.00****$1,687.20****$2,340.00****$4,485.00****$4,485.00****$6,000.00****$6,000.00****$20,049.57****$40,099.14****$1,299.00****$61,344.26****$20,000.00****$281,575.76****$12,395.40****$36,674.22****$31,224.29****$8,384.85****$1,436.75****$32,770.00****$40,184.41****$29,043.71****$8,110.22****$29,518.07****$339.16****$4,828.34****$381.48** |  |

**Appendices**

**Appendix A:** List all External Providers paid from SIG-Technology Grant Funds; add rows as needed.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **External Provider** | **Scope of Work** | **Timeframe -Duration (i.e. hours, weeks, months)** | **Expected Outcome(s)** | **Plan for** **Evaluating Implementation** | **Plan for Evaluating Effectiveness** |
| **Moodle Representative** | Consulting to upgrade Moodle; provide training to staff on expanded capabilities; IT will then train teachers | Month | Updated Moodle server and increased use of Moodle by teachers | Increased use by teachers and students | Survey to be completed by teachers/students |
| **Server Representatives (e.g., IT Partners)** | Upgrade of servers at LEA and school | Month | Upgraded servers; SAN and additional servers | SAN storage usage of new voluble storage increased from baseline. | New SAN system provides sufficient space for the updated Moodle servers; new ICD’s distribute to school are successfully supported by the upgraded SAN. |
| **ASTG (Arizona School Transformation Group)** | STEM development Discovery Learning Camp; provision of consulting regarding development of STEM activities that align with curriculum maps | 19 days; 21 days | STEM curriculum for 21-day Discovery Learning Camp; completed STEM activities in Moodle | STEM curriculum and activities completed and on file | STEM curriculum and activities completed and on file. |

**Appendix B:** List type, amount, use and cost of equipment being purchased with this grant; add rows as needed.

|  |  |  |  |
| --- | --- | --- | --- |
| **Infrastructure/Hardware** | **Amount** | **Enhancement to Instruction** | **Cost** |
| **Baseline** | **Need** |
| **20 (K-2)** | **IPads** | **73** | **Universal access; preparation for online assessment; enhance teaching and learning** | **$31,224.14** |
| **20 (K-2)** | **IPad covers** | **73** | **$3,060.53** |
| **1** | **Ipad carts** | **3** | **$8,384.84** |
| **50** | **Student Laptops** | **136** | **$281,575.76** |
| **0** | **Laptop Carts** | **6** | **12,395.40** |
|  | **Teacher Laptops** | **22** | **36,674.22** |
| **0** | **.25 Grant laptops** | **2.25** | **$4,828.34** |
| **0** | **.25 Grant usb screens** | **2.25** | **$381.49** |
| **16mbps** | **Bandwidth** |  | **Connectivity to Internet** |  |
|  | **E-rate** |  | **Upgrade servers and switches** | **$61,344.26** |
|  | **Upgrade servers** |  | **Provide reliable system** | **$139,626.41** |
|  | **Update licensing** |  | **Provide reliable tools to teachers and students** | **$35,557.41** |
|  | **Upgrade software** |  | **Provide reliable tools to teachers and students** | **$3,248.16** |
|  | **Projectors** | **25** | **Provide reliable tools to teachers** | **$20,000.00** |

**Appendix C: Support and Commitment Letters**

* Letters of commitment need to be obtained from the School Board or Governing Board
* Letters of Commitment must contain the following information
	+ - *Commitment to the project activities to achieve defined goals*

*Willingness to participate in accountability/evaluation activities as appropriate*

