

Technology Strategies & Action Step Examples

Throughout this resource, the Arizona Department of Education (ADE) has included sample technology focused strategies and actions steps that directly relate to the **Standards for Effective LEAs** [in red brackets] that may be used as brainstorming starters.

All action steps in the Continuous Improvement Plan (CIP) that incorporate any form of technology or professional development regarding technology must include the “TECH” tag that is found inside the developing or editing of an action step. The LEA Needs Assessment, signed CIPA form and the CIP filtered by TECH Tags in ALEAT becomes your LEA Technology Plan. For **E-rate FY 2014**, request a Tech Plan approval letter from ADE if applying for E-Rate Priority Two Services. Send request to TechPlans@azed.gov.

The ADE encourages collaboration among the different federal programs within an LEA to maximize resources and communicate how technology will be effective in regard to implementing the LEA CIP. These should be considered part of the technology plan, and must have a “TECH” tag added to the action steps.

Internet Safety and CIPA (Children’s Internet Protection Act) requirements strategies belong in **Standard 2 – LEA Leadership under L3**: *Manages the organization to provide a safe, efficient, and effective learning environment*. The Arizona Department of Education strongly suggests LEAs address this each year. (Sample strategies and action steps can be found below.) A current CIPA needs to be on file for ANY LEA receiving E-Rate funding.

For LEAs needing an ADE Tech Plan Approval Letter for E-Rate Priority II services, it is essential to add TECH tags as appropriate in ALEAT’s CIP that cover the following areas:

- Clear goals and a realistic strategy for using telecommunications and information technology to improve education;
- A professional development strategy to ensure that members of the staff know how to use these new technologies to improve education;
- A needs assessment of the telecommunication services, hardware, software, and other services that will be needed to improve education; and
- An evaluation process that enables the school or library to monitor progress toward the specified goals and make mid-course corrections in response to new developments and opportunities as they arise.

The Standards for Effective LEAs include:

1. Continuous Improvement
2. LEA Leadership
3. Curriculum and Instructional Systems
4. Supplemental Supports and Intervention Services
5. Data, Assessment, and Evaluation
6. Stakeholder Relations

NOTE: Anything in italics below represents suggestions. You can replace with your own verbiage.



Strategy Title: Classroom Observations

[Continuous Improvement, LEA Leadership, Curriculum and Instructional Systems, Data, Assessment, and Evaluation]

Description: The district and school site leaders will conduct classroom observations to determine strengths and weaknesses of the level of implementation of identified instructional strategies.

Action Step: The leadership staff will conduct weekly classroom walk-through observations utilizing *Mobile Principal software* and *hand-held hardware* for collecting data.

Action Step: Teachers/leaders will engage in the *Intel® Teach Elements – Assessment* professional development online course offered through ADE.

Action Step: Principals/leaders will use in *Technology Integration Matrix Observation Tool (TIM-O)* to evaluate the level of technology integration within a particular classroom.

Strategy Title: Teacher Collaborative Sharing and Learning

[Continuous Improvement, LEA Leadership, Curriculum and Instructional Systems, Data, Assessment, and Evaluation]

Description: Teachers will create collaborative sharing and learning groups to discuss issues, share resources, and innovate.

Action Step: Teachers will utilize *Edmodo* or similar collaboration platform to collaboratively share resources, discuss current issues, and create innovative ideas for increasing academic achievement.

Action Step: Technology coaches will be trained in the *Peer Coaching program* (through Peer Ed) that they will incorporate with the teachers that they work with at their school sites to help teachers improve lesson design using technology.

Action Step: Teachers will complete the *Intel® Teach Elements (Project Based Approaches, Assessment, Collaboration, Thinking with Data, Blended Learning)* online professional development course offered through ADE; and use their gained technology knowledge in instructional planning and implementation of academic lessons in the classroom.

Action Step: Teachers will participate in the *AZTeach 21* online professional development course offered through ADE that helps teachers understand how to fully implement the 2009 Educational Technology Standard.

Strategy Title: Formative Assessment

[Curriculum and Instructional Systems; Instructional Systems, Data, Assessment, and Evaluation]

Description: Students will engage in real-time formative assessments with a teacher’s immediate feedback to increase academic achievement.



Action Step: Teachers will engage in *the Intel® Teach Elements – Assessment* online professional development facilitated course offered through ADE to discover a variety of formative assessment strategies.

Action Step: Students will use a *student response system (handheld devices known as “clickers”)* to respond to questions asked verbally, on paper, or on screen that enables the teacher to instantly assess students’ comprehension of lessons and provide immediate feedback to the students.

Action Step: Teachers will use a *tablet-like mobile device connected to an interactive whiteboard* and *accompanying software* in conjunction with the student response system to identify students who need special attention or topics that require re-teaching.

Action Step: Teachers will utilize *an online assessment program* to create, administer, and manage assessments.

Action Step: Teachers will utilize the *Formative Assessment and AIMS for Educators resources through IDEAL* to create concept level pre- and post –tests, and to use the assessment-item data bank to create tests for their students.

Strategy Title: Student-Centered Collaborative Learning

[Continuous Improvement, LEA Leadership, Curriculum and Instructional Systems, Data, Assessment, and Evaluation]

Description: Students will engage in technology integrated student-centered collaborative learning lessons.

Action Step: Students will use *mobile tablets or laptops* to access personalized learning programs in small collaborative group instruction with the teacher.

Action Step: Teachers will engage in the *Intel® Teach Elements – Project Based Approaches* online professional development facilitated course offered through ADE to discover a how to conduct student centered projects with their classes.

Action Step: Teachers will utilize the in the *Arizona Technology Integration Matrix* to see examples of lesson plans and to view video segments to discover how to use technology to create a student-centered collaborative learning environment.

Strategy Title: Engaged Learning

[Continuous Improvement, LEA Leadership, Curriculum and Instructional Systems, Data, Assessment, and Evaluation]

Description: Teachers will engage students in academic lessons through the use of technology in order to increase academic achievement.



Action Step: Teachers will utilize *online media and primary resources* to engage students in their lessons.

Action Step: Teachers will utilize the *Characteristics of the Learning Environment of the Arizona Technology Integration Matrix* to find examples of a variety of strategies to become more student centered in their instruction.

Action Step: Teachers will implement project based learning based on *Intel® Teach Elements – Project Based Approaches* online professional development facilitated course through ADE.

Strategy Title: Lesson Planning

[Continuous Improvement, LEA Leadership, Curriculum and Instructional Systems, Data, Assessment, and Evaluation]

Description: Teachers will use technology tools to plan academic lessons that meet the needs of students.

Action Step: Teachers will use *the 2009 Ed Tech Standard Grade Level Implementation Guides* to assist with creating standards-based academic lessons integrated with technology.

Action Step: Teachers will utilize the *Arizona Technology Integration Matrix and lesson plans/videos* to find examples of a variety of strategies to become more student centered in their instruction.

Action Step: Teachers will implement project based learning based on *Intel® Teach Elements – Project Based Approaches* online professional development facilitated course through ADE.

Action Step: Teachers will complete series of *Intel® Teach Elements (Project Based Approaches, Assessment, Collaboration, Thinking with Data, Blended Learning)* online professional development courses offered through ADE; and use their gained technology knowledge in instructional planning and implementation of academic lessons in the classroom using a variety of technology tools.

Strategy Title: Internet Safety

[LEA Leadership under L3] ADE strongly suggests that this be added for any LEA receiving E-Rate funding. Upload a completed and signed digital copy of the CIPA Certification Form into ALEAT.

Description: The district will use technology to create safe schools that are conducive to learning.

Action Step: The district will provide *safe and appropriate internet access* through the district firewall that is compliant with *CIPA procedures*.

Action Step: The district will require all staff, students, and parents to read, accept, and sign an *Acceptable Use Policy for technology and the internet* prior to using such tools.

Action Step: The school district will develop policies and procedures related to *maintenance of hardware, software, infrastructure, and security*.

Action Step: The school district will meet *current and future requirements to keep the technology current; maintain and support existing technology and networking*.



Action Step: The school district will ensure that *the infrastructure for broadband connectivity* delivered to district classrooms is commensurate with state-of-the-art information systems.

Action Step: The school district will ensure that an **Internet Safety curriculum (appropriate online behavior, including interacting with other individuals on social networking websites and in chat rooms, and cyberbullying awareness and response)** is delivered to district classrooms for educating minors. Individual school principals will ensure that all teachers provide this instruction to their students.

Strategy Title: Access to Increased Communication

[Stakeholder Relations]

Description: The district will increase and maintain access to communication from the district and school level to parents and families through the use technology.

Action Step: The district will maintain an up-to-date *internet web page* communicating information about the district and school to families, the community, and the world.

Action Step: The district retain an *infrastructure that enables email communication and notification systems* through technology in order to communicate with parents and families.

Action Step: The district will maintain an *online student management system* that allows parents access to their child's grades and electronic student portfolios.

Action Step: Each school library or media center will support/host a *math/science/technology week* in the fall and spring semester of the school year including one *open house evening showcasing math/science/and technology*.

Strategy Title: Annual Technology Survey

[Continuous Improvement, LEA Leadership, Curriculum and Instructional Systems, Data, Assessment, and Evaluation and Stakeholder Relations]

Description: Utilize annual data from K – 12 students, teachers, parents and administrators to make key technology decisions.

Action Step: Each school in the district will participate in *Speak Up's* annual survey of K-12 students, teachers, parents, and school administrators.

Action Step: LEA will complete or update information in the *TechReadiness Tool* twice a year to assure technology readiness for online assessment.

Strategy Title: Technology Support

[Continuous Improvement, LEA Leadership, Curriculum and Instructional Systems, Data, Assessment, and Evaluation, Stakeholder Relations]

Description: Expand the use of technology for instruction, professional development, data collection, and parent/community/school communication.



Action Step: The District will provide adequate *technology resources* to support administrative data gathering and reporting, *technology tools* for student instruction and assessment data gathering, community and staff communication, and *technology integration* professional development activities.

Action Step: Employ staff for the following activities: *technology planning, network management, website design, technology integration professional development and technical support* to all staff.

Miscellaneous Technology tagged action steps:

Action Step: Teachers will complete series of *Intel® Teach Elements (Project Based Approaches, Assessment, Collaboration, Thinking with Data, Blended Learning)* online professional development courses offered through ADE and use their gained technology knowledge in instructional planning and implementation of academic lessons in the classroom using a variety of technology tools.

Action Step: The school district will acquire a district *license with Gaggie.Net* with individual online Digital Lockers for saving student work.

Action Step: The school district will administer the *Inventory of Teacher Technology Skills (ITTS)* to teachers at the beginning of each school year. Results will become focus of professional development.

Action Step: The school district will administer the *Student Tool for Technology Literacy* to students in 5th through 8th grade at the beginning of each school year. Results will become focus of professional development for teachers.

Action Step: Teachers will complete the *Intel® Teach Elements (Project Based Approaches, Assessment, Collaboration, Thinking with Data, Blended Learning)* online professional development courses offered through ADE and use their gained technology knowledge in instructional planning and implementation of academic lessons in the classroom.

Action Step: Teachers will use *the 2009 Ed Tech Standard Grade Level Implementation Guides* to assist with creating standards-based academic lessons integrated with technology.



Resources Used In Action Steps

2009 Ed Tech Standard and Grade Level Implementation Guides - <http://www.azed.gov/standards-practices/2009-technology-standard/>

Arizona Technology Integration Matrix - <http://www.azk12.org/tim/>

CIPA Certification Form - <http://www.azed.gov/educationaltechnology/files/2011/06/cipacertificationrev-9-13.doc>

CIPA information - <http://www.usac.org/sl/applicants/step06/cipa.aspx>

ADE CIPA Certification Form - <http://www.azed.gov/erate/files/2014/08/cipa-certification-form-8-18-14.pdf>

ADE CIPA Certification Letter - <http://www.azed.gov/erate/files/2014/08/@bw-cipa-certification-letter-8-18-14.pdf>

E-rate Application - FCC Form 479 - http://www.usac.org/_res/documents/sl/pdf/forms/479.PDF

FCC Form 479 Instructions - http://www.usac.org/_res/documents/sl/pdf/forms/479i.pdf

Edmodo – www.edmodo.com

Intel Courses – www.ideal.azed.gov to register

Intel Courses information:
<http://www.intel.com/content/www/us/en/education/k12/teachelements.html>

Inventory of Teacher Technology Skills (ITTS) & Student Tool for Technology Literacy - <http://www.azed.gov/educational-technology/technology-literacy/>

Peer Coaching by Peer Ed - http://peer-ed.com/index_L35O.php

Speak Up 2013 - <http://www.tomorrow.org/speakup/>

Tech Plan Process Flowchart - <http://www.azed.gov/erate/files/2014/08/tech-plan-process-flowchartrevised9-13rev2.docx>

TechReadiness Tool – www.techreadiness.org

