# Carson City School District Technology Plan

2013 - 2016

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December 31, 2012

Ms. Susan Keema, Associate Superintendent Educational Services
Carson City School District
1402 W. King Street
Carson City, NV 89703

Re: Carson City School District Technology Plan Approval

Dear Ms. Keema:

Your Carson City School District Technology Plan has been approved and is valid from December 31, 2012 through June 30, 2015. Carson City School District will be included on a list of approved technology plans that will be available to the Schools and Libraries Corporation (e-Rate) and the U.S. Department of Education.

**Technology Plan Approval for schools and Libraries Universal Service Program**

The Nevada Department of Education is certified by the Schools and Libraries Division of USAC to approve technology plans for participation in the Schools and Libraries Universal Service Program.

Carson City School District has a technology plan that has met the standards and criteria outlined in the following checklist.

**CHECKLIST**

Successful technology plans align the overall education or library service improvement objectives with the following five criteria. To qualify as an approved Technology Plan for Universal Service Program discount, the plan must meet these criteria. It is critical that technology planning not be viewed or treated as a separate exercise dealing primarily with hardware and telecommunications infrastructure. There must be connections between the proposed physical infrastructure of the information technology and the plan for professional development, curriculum reform, and library service improvements.

X      The plan establishes clear goals and a realistic strategy for using telecommunications and information technology to improve education or library services.

X      The plan has a professional development strategy to ensure that staff knows how to use the new technologies to improve education or library services.

X      The plan includes an assessment of the telecommunication services, hardware, software, and other services that will be needed to improve education or library services.

X      The plan provides for a sufficient budget to acquire and maintain the hardware, software, professional development, and other services that will be needed to implement the strategy for improved education or library services.

X      The plan includes 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.

Kimberly Vidoni
Educational Technology Consultant

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# CHECKLIST

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\_\_\_\_\_     The plan has a professional development strategy to ensure that staff knows how to use the new technologies to improve education or library services.
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Page 21 -Attachment – 12-13 Budget

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Acknowledgements


The Carson City School District would like to recognize the following people for their input into this plan.

Ananda Campbell, Librarian Carson Middle School
Chelise Crookshanks, Carson Middle School Technology Teacher
Toby Deluca, Elementary Parent
Susan Keema, Associate Superintendent of Educational Services
Jason Koop, Seeliger Elementary Teacher
LeAnn Morris, Technology Integration Specialist
Kay O'Neil, Librarian Fritsch Elementary
Marjorie Rispin, Carson Middle School Classroom Teacher
Marc Rodina, Carson High Administrator
LeAnn Saarem, Secondary Parent
Sam Santillo, Seeliger Administrator
Janice Towns, Information Technology
Irene Waltz, Elementary Technology Teacher

Executive Summary

This Technology Plan will be used by the Carson City School District (CCSD) as a "guide" to plan and deliver 21st century learning opportunities for **all** students. The plan utilizes technology as a tool to enhance the District's Student Centered Learner model. The model is designed to address four critical elements: Curriculum, Instruction, Assessment and Leadership.  Each of the four elements must incorporate 21st Century learning opportunities that will lead to student mastery. Promoting college and career readiness is critical to the success of our students. This educational change model can effectively prepare students to succeed in college and the workplace in a global economy.

Goals of the plan focus on the integration of technology throughout the implementation of the Nevada Standards* in all subjects.

The desired outcomes are to:

➢ Increase accessibility to technology
➢ Increase achievement for all students
➢ Provide sustained high quality staff development for teachers
➢ Increase graduation rates
➢ Decrease dropout rates
➢ Decrease college remediation rates

This is a three year plan whose value will be realized only through yearly review by district and community stakeholders:  The CCSD Technology Plan is aligned to:

➢ Empower Carson City 2017 the District's Five Year Strategic Plan
➢ District's Improvement Plan (DIP)
➢ Race to the Top Grant (RTT)


 *Nevada Standards include but are not limited to Common Core State Standards (CCSS) and the Next Generation Science Standards (NGSS)

# 21<sup>st</sup> Century Learning

## *Introduction*

"In partnership with the community, we will make the most of every day for each student by empowering them with the skills, knowledge, values and opportunities to thrive." In order to accomplish our mission we must have:

> *Community in Full Partnership*
> *Engaged Parents and Guardians*
> *Healthy Generations of Carson City Students*
> *Curriculum that Matters*
> *Exceptional administrators, teachers, and staff*

The District's focus on student centered instruction will facilitate the goal of improved academic achievement, technology literacy and mastery of 21<sup>st</sup> century skills, for all students. A key component to achieving our goals is providing teachers with the tools and support to effectively embed technology into all curricular areas of instruction.

The District utilizes funding from a variety of sources; local, state, federal, bond, and private to provide classrooms with:

> *Interactive white boards*
> *Document cameras*
> *Computer Labs*
> *Mobile Devices*

Our current 1 to 1 Mobile Pilot was implemented using "pay as you go bond funds".  The pilot has directly impacted 7 administrators, 22 teachers and approximately 1,300 students. The impact has extended to include the Success For All program, instructional coaches, department heads, and other administrators.

Schools use technology to support student learning in all curricula subjects allowing for:

> *Enhanced classroom instruction in all areas*
> *Embedding of 21<sup>st</sup> century skills in student learning*
> *Enriched Media Center access*

Curriculum maps and pacing guides are being updated for all K-12 subject areas. They are required to align CCSD curriculum with Nevada State performance standards.  This process is also being used to insure that curriculum is articulated horizontally and vertically for all grade/content levels.  This system establishes weekly peer collaboration

though Professional Learning Communities. For example, the curriculum for Computer Technology K-12 is being revised and mapped so that it is aligned with the International Society for Technology Education (ISTE) which serves as the foundation to the Nevada State Standards. As a result of this revision, CCSD graduation requirements support middle school students meeting the State Computer Literacy requirement by the end of 8<sup>th</sup> grade.

Carson is continuing to develop and share common formative assessments between sites and grade levels throughout the district. Administrators analyze this data with staff to make informed decisions regarding curriculum, instruction and teacher effectiveness. Teams of teachers led by content coaches, consultants or Implementation Specialists meet to accomplish this task by committee, grade level or content areas throughout the school year.

Technology is used to support different learning styles and meet the needs of all learners in the district.  For example, technology supports differentiated learning with multiple means of expression (multimedia presentation tools), numerous methods of engagement (simulations, content-based software), and various ways of representation (digital images, animation, sound, text-to-speech resources).  Curriculum materials are varied and diverse, to include online resources to supplement textbooks. CCSD will move towards electronic online resources in lieu of adopting hardcover textbooks.

Assistive technology has been made available to students with special needs so that they are able to fully participate in regular classroom activities and maximize their learning potential.  Students placed in resource and self-contained classrooms have access to the technology necessary to provide equal access to K-12 curriculum.

With the addition of a Technology Integration Specialist teachers are provided with intensive, high-quality professional development to embed technology use in all curricula subjects.

Hardware, software, and support resources are provided to all schools to encourage technology integration.

## *Goals for Success*
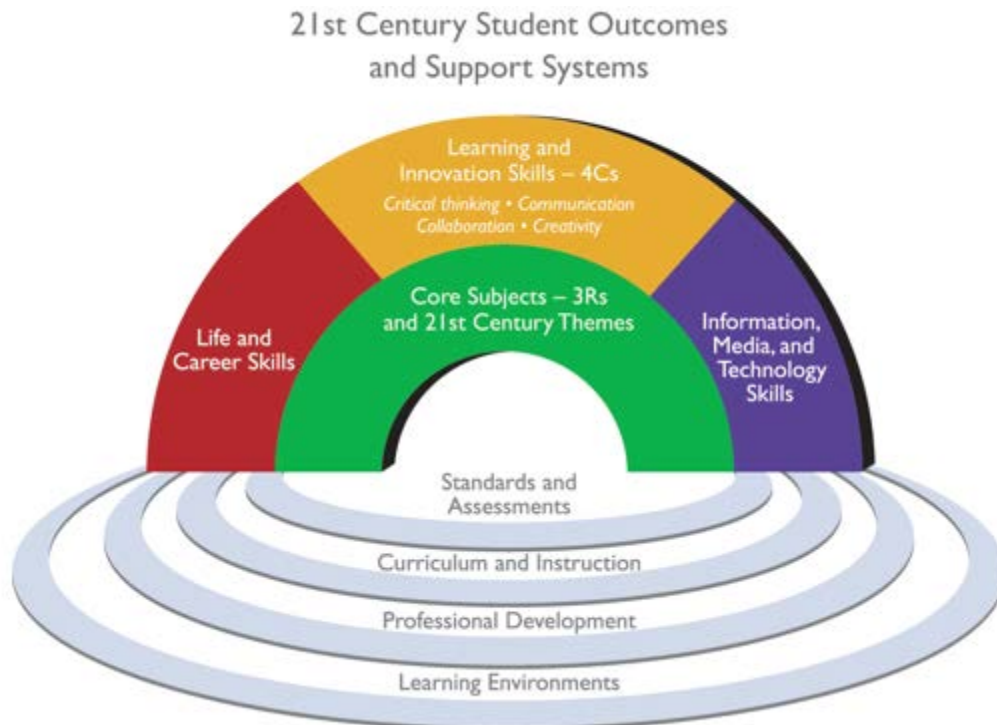
## Underlying Ideology of the Goals for Success

Carson City School District's Improvement goals are the community supported Strategic Plan titled "Empower Carson City 2017." CCSD was selected first out of sixteen school districts nationwide who received a federally funded Race to the Top grant. This grant was based on the District's Strategic Plan. Together these documents support:

**Goal 1** **Community in Full Partnership:**
Actively connect every student with learning beyond the classroom

**Goal 2** **Engaged Parents and Guardians:**
Empower families to positively impact their child's education in a welcoming and inclusive environment

**Goal 3** **Healthy Generations of Carson City Students:**
Promote optimal wellness for all students

**Goal 4** **Curriculum that Matters:**
Provide multiple pathways that empower lifelong learners, active citizens, and career and college ready students

**Goal 5** **Exceptional administrators, teachers, and staff:**
Attract and retain a preeminent faculty by supporting innovation, creativity, and performance in our administrators, teachers, and staff

**Develop 21st Century Schools and Learners**

Following the Framework for 21st Century Learning (Partnership for 21st Century Skills; www.p21.org) our students will possess the skills in order to compete globally:

- *Critical thinking*
- *Problem solving*
- *Communication and collaboration skills*
- *Creativity*



Our Administrators and teachers must also be proficient in these skills and possess the ability to create learning opportunities for students in these areas.

**Collaboration**

Teachers will be the ones that instruct our students in the application of 21st Century tools, therefore it is imperative that they embrace these tools in their professional life. Professional Learning Communities (PLC'S) have been established in order to foster that collaborative environment amongst staff members. Clustering in the classroom is being used to establish collaboration amongst students.

**Additional**

Carson City School District believes the curriculum will drive the change. We are in the process of evaluating our curriculum, assessment and instructional delivery.  During textbook adoption and curriculum mapping we are exploring:

> - Introduce 21$^{st}$ Century Skills
> - How technology could be used to drive instruction
> - Deliver content
> - Assess for mastery

# *Goal 1: Infrastructure and Connectivity*

**Goal Statement**

Maintain and expand current infrastructure to meet the requirements for a 21$^{st}$ Century learning environment for students. Upgrade wireless network to adequately support One-to-One mobile device implementation district wide.

**Rationale**

In order to utilize 21$^{st}$ Century tools a reliable and flexible core must exist to deliver content and/or allow for collaboration.  This core must allow for anywhere anytime access in a wired or wireless environment in order to meet the varying needs of instruction. Current wireless technology will allow devices to connect at higher speeds and greater concentration.

**Benefits for Learning**

➢ Teachers will not be hindered from incorporating current technologies into their instruction due to inadequate resources.
➢ Students will be able to use tools that are familiar and engaging in and out of the classroom.
➢ Students will be exposed to content that cannot be delivered through traditional methods of instruction.
➢ Students will be the focus of instruction becoming active, responsible participants in their own learning.

**Reality in District**

Lack of a dedicated funding source is always a major obstacle to maintaining and expanding the infrastructure.

We currently have a 1GB Ethernet network and a 54MB wireless network installed at each school site.  All sites have a minimum WAN link of 20MB to the district office where there is a 500 MB connection to the Internet. In order to keep up with network demands we will need to retool our wireless network for the new standards and replace access points.

## Target 1 – Hardware **Refresh**
Establish replacement schedule for 1:1 mobile devices and technology equipment.

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Evaluate current classroom technology - look at cost efficiency/feasibility and compatibility of current equipment with newer offering. | IT, Technology Committee, Building Coordinator | ongoing | Staff, Funding, Professional Development | Recommendation for replacements and/or change of standards |
| Identify funding source for purchase of 1:1 devices; recurring broadband charges; appropriate classroom technology as identified. | IT, Grants, Fiscal | 2013 | Ideally, dedicated budget line item for hardware replacement. | Fully implemented 1to 1 |
| Upgrade wireless network to support higher speeds | IT | ongoing | Funding | Increased access, higher speed, end user satisfaction |

## Target 2 - Standardize Application Software (free and paid subscription)
Provide for upward articulation by updating and standardizing on applications used District wide.

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Evaluate use of exiting titles. Identify titles for relevance to curriculum and educational value (supporting data). | IT, Administration, End User | April 2013 | Staff Time, PD | Discard titles not in use, renew titles in use, train/retrain |
| Create online Library of approved free ware and paid titles | IT, Educational Services | August 2014 | Staff Time | Listing of titles that will be supported by district and available for instructional use |

## Target 3 - Site Level Support

Provide site level support for instructional integration

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Revise Supplemental Job Description for Site Technology Coordinators | IT, HR, Administration | March 2013 | Stake holder input | Job description matches duties |
| Maintain Site Technology Coordinator | IT, HR, Administration | ongoing | Funding | Timely support |
| Upgrade wireless network to support increased equipment demands. | IT | July 2013 | Funding | Ability to handle increased network demands |
| Increase FAQ's in FootPrints work order system | IT | June 2013 | Staff Time | Empowered users |

## Target 4 – Explore the viability of BYOD

Explore the viability of BYOD (Bring Your Own Device).

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Form committee to evaluate feasibility of BYOD | IT, Technology Integration Specialist, Committee | 2014 | Staff time | Recommendation on feasibility of BYOD |

## *Goal 2: Professional Development*

**Goal Statement**

Provide professional development opportunities to district staff that will allow them to embed 21st Century learning into the curriculum.  Establish a professional development sequence that will lead to a Computer literacy endorsement for certified staff. Sustain district Technology Integration Specialist and expand to provide an Integration Specialist at each site. Develop online professional development training library.

**Rationale**

Instructional staff must be comfortable with 21st Century technologies in order to incorporate them into their instruction and impact student learning. Provide staff and community with anytime anywhere learning opportunities.

**Benefits for Learning**

Using 21st Century teaching skills will enhance classroom instruction providing an environment that is more engaging to students and:

- ➢ Increase student engagement within the classroom
- ➢ Increase attendance
- ➢ Increase parental and community involvement
- ➢ Decrease dropout rates
- ➢ Increase graduation rates
- ➢ Develop students that are college and career ready

**Reality in District**

Professional development opportunities in technology integration are primarily focused on the 1 to 1 participants. The district funds one Technology Integration Specialist.

The district continues to be technology rich in terms of Smart Boards, projectors, Audio Enhancement units, document cameras, and laptop carts. CCSD has ongoing professional development for participants in the 1 to 1 Mobile Pilot. A goal is to expand training opportunities to district staff that are part of the instructional support system. Site based Technology Integration Specialist would offer more timely support.

## Target 1 – Implement uniform Online Curriculum and Assessment tools

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Align curriculum for vertical/horizontal articulation within and between grade levels | Associate Superintendent of Educational Services; Transformation Office | Ongoing 2013-2016 | Electronic database, curriculum mapping tools, Facilitators of the process to include: Implementation Specialists, consultants, coaches | Aligned curriculum vertically / horizontally K-12 all content areas |
| Provide training in Technology integration | Technology Integration Specialist, Transformation Office, Site Administration, IT Department | Classroom coaching, PD Days Creative scheduling | Media Specialist, 1 to 1 cohort, Building Coordinator, funding, Web based training tools; Carson Online vendor | Increased use in daily lesson delivery as reported by teacher & student; increased engagement |

## Target 2 – Establish professional development program to facilitate integration of 21st century skills leading to a Computer Literacy Endorsement

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Develop courses to satisfy NV State requirements | Technology Integration Specialist | Spring 2013 | Funding, Staff commitment | NDE and Southern Utah University coursework approval |
| Train first cohort | Technology Integration Specialist | August 2012 | Funding, Staff commitment | Computer Literacy Endorsement 20 staff 2014 |
| Train second cohort | Technology Integration Specialist | August 2013 | Funding, Staff commitment | Computer Literacy Endorsement 20 staff 2015 |
| Develop online training library | Technology Integration Specialist | August 2013 | Staff commitment | Timely support and Professional Development |

**Target 3 – Develop professional development opportunities based on data collected from ICOT (ISTE Classroom Observation Tool).**

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Complete site walkthroughs to obtain data | Technology Integration Specialist and site administration | August 2013 Cohort 1 January 2014 Cohort 2 | Staff, tablets or data collection device, eWalk ; ICOT Template | Identification of coaching areas; increased knowledge of administration of technology tools |
| Develop training plan(s) based on data collected | Technology Integration Specialist; Director of Assessment and Accountability | August 2013 | Electronic database | Baseline data used for site coaching, and to determine lesson design |

**Target 4 – Sustain district technology integration specialist and provide technology implementation assistance at site level.**

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Sustain district wide Technology Integration Specialist | District | 2012 | Dedicated Funding | Consistent and ongoing training support for staff |
| Create site based Technology Integration Specialists | District | 2014 | Funding and staff training | Timely support for site staff |
| Provide for Technology Integration support at site level | District | 2014 | Funding, training for site staff | Timely support for site staff |

## *Goal 3: Instructional Integration*

**Goal Statement**

Provide a learning environment that fosters digital citizenship and utilizes 21st Century tools.

**Rationale**

21st Century tools will support student centered instruction and keep students engaged. As most 21st Century tools are collaborative in nature, students will develop the skills to communicate and function in the global economy. Students will become responsible for their learning and learn in a way that is familiar to them.

**Benefits for Learning**

- ➢ Teachers will incorporate higher order thinking skills to provide rigor and relevance for the learner
- ➢ Engaged students are less likely to become disruptive during instruction
- ➢ Engaged students are more likely to demonstrate mastery of the content
- ➢ Increased cohort graduation rates
- ➢ Students with 21st Century Skills will be able to complete globally

**Reality in District**

The need and desire to embed Technology in all areas of instruction exists within the district.

**Target 1:** Support the transformation of classroom practices in all curriculum areas by funding technology resources that address the diversity of learning styles and development of 21st century learning skills.

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| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Increase funding resources for classroom technology | IT Director, Associate Superintendent of Educational Services, Fiscal Director | Budget July 1, 2013 | Staff, funding | Increased number and types of classroom technology |
| Develop Community Partners which would support funding technology, building relationships and provide tech support for the classroom | Superintendent, IT Director, Associate Superintendent of Educational Services, Fiscal Director, Strategic Plan Committee | August 2013 | Time, list of potential community partners | Partnership contact; district, site classroom sponsor |
| Develop technology based common formative assessments | Associate Superintendent of Educational Services, Transformation Office; Technology Integration Specialist | Fall 2013-2016 | Electronic data base, funding, 1:1 devices, Professional Development for certified/classified staff | Increased proficiency on common formative assessments; increased scores on high stakes assessments |
| Prepare students to take high stakes online assessments | IT Department, Associate Superintendent Educational Services, Director of Assessment and Accountability | Ongoing 2013-2016 | Variety of classroom devices, ie: mobile devices that allow manipulation, keyboards | Increased efficiency in taking high stakes assessments; increased scores on high assessments; increased graduation rates |

**Target 2:** Provide community and parents with effective support of 21<sup>st</sup> century skills by providing resources for learning inside the classroom and outside the school day.

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Develop communication plan designed for two-way interaction between schools and parents | IT Director, Associate Superintendent of Educational Services, Technology Integration Specialist, Site Administration | August 2013 | Teacher/parent feedback groups, student information system, ePortfolio | Increased trust; shared responsibility; increased parent involvement |
| Provide parent training opportunities on the use of school technology | IT Director, Associate Superintendent of Educational Services, district and site Technology Integration Specialist, Site Administration, Transformation Office | August 2013 | PTA, PTO, School parent nights dedicated to parent training | Increased parent capacity to navigate CCSD educational system; increased parent involvement |

**Target 3 – Students will have access to technology and use 21<sup>st</sup> Century Tools.**

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Provide every student access to 1:1 mobile technology and internet access | IT Director, Associate Superintendent of Educational Services, Technology Integration Specialist | September 2013 | Funding, Staff, Professional Development | All district sites have access to 1:1 mobile technology by 2016 |
| Develop personalized ePortfolios beginning with 4<sup>th</sup> grade | IT Director, Associate Superintendent of Educational Services, Technology Integration Specialist, Site Administration, Transformation Office, Director of Assessment and Accountability | 2013 | Funding, Staff Professional Development, data system which supports ePortfolio development | Increased guidance and monitoring of graduation plans; ePortfolio development 4<sup>th</sup> - 12<sup>th</sup> grades completed by 2016 |

### Target 4 – Enhance Parent Student Access to Online Resources

Provide electronic resources for our parents, students and community to stay involved with the School District.

| Action Step | Responsible | Onset | Resources Needed | Outcomes |
|---|---|---|---|---|
| Provide Parent training on resources available online and at sites | IT for online tools; Family Engagement Coordinators, Site Administration | 2013 | Staff Time | Training plan developed; informed community; increased school involvement |
| Enhance Parent/Student Portal to include relevant graduation planners, ePortfolio | IT, RTT | 2013 | Staff Time, Funding | Informed staff, parents, students and community; increased school involvement |