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Technology Plan submission for Cycle C - May 31 for Year 20014-2018

Technology Plan

July 1, 2014 – June 30, 2018



OAKLAND UNIFIED
SCHOOL DISTRICT

*Community Schools,
Thriving Students*

Oakland Unified School District

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Version 1.0

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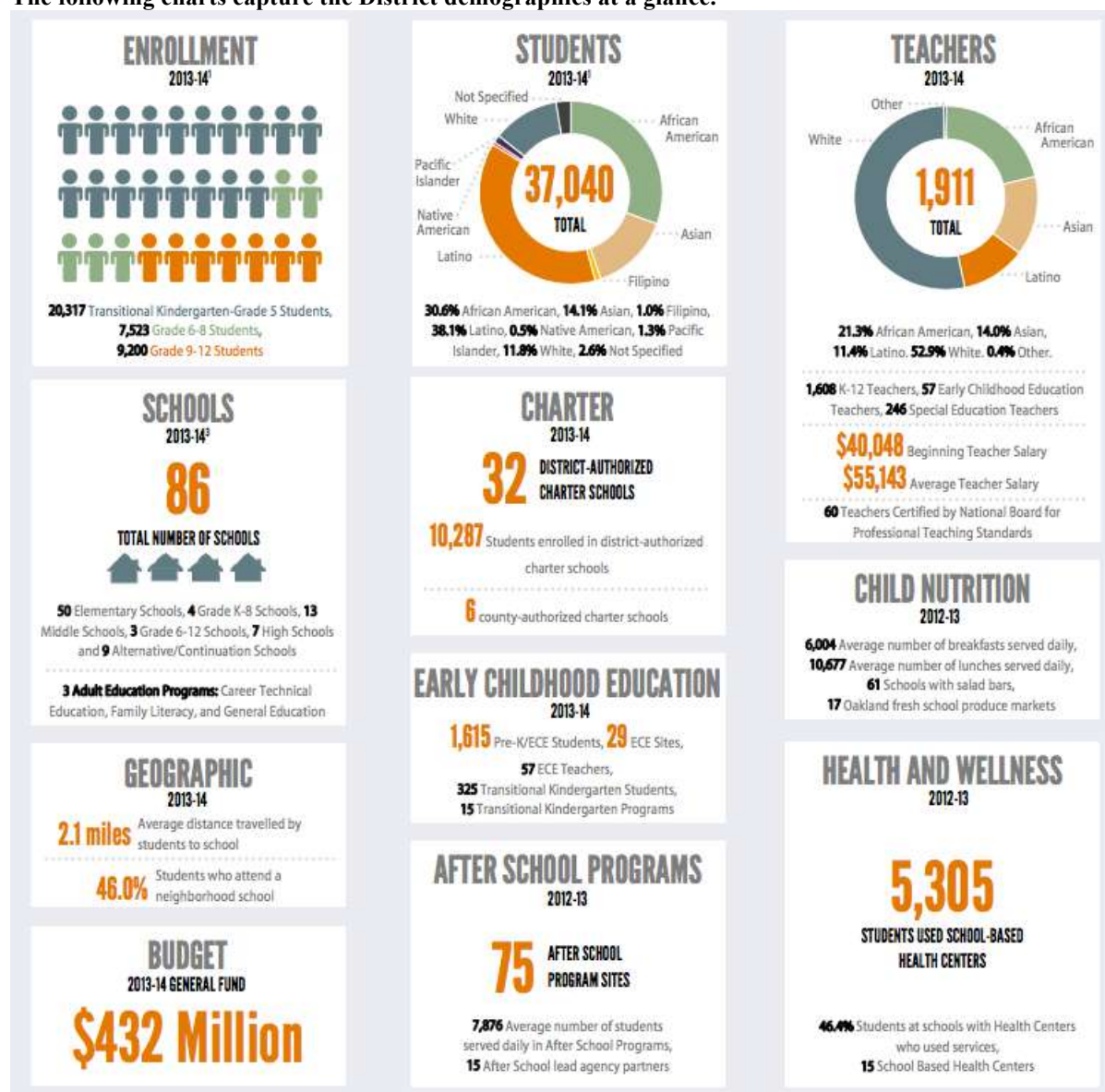
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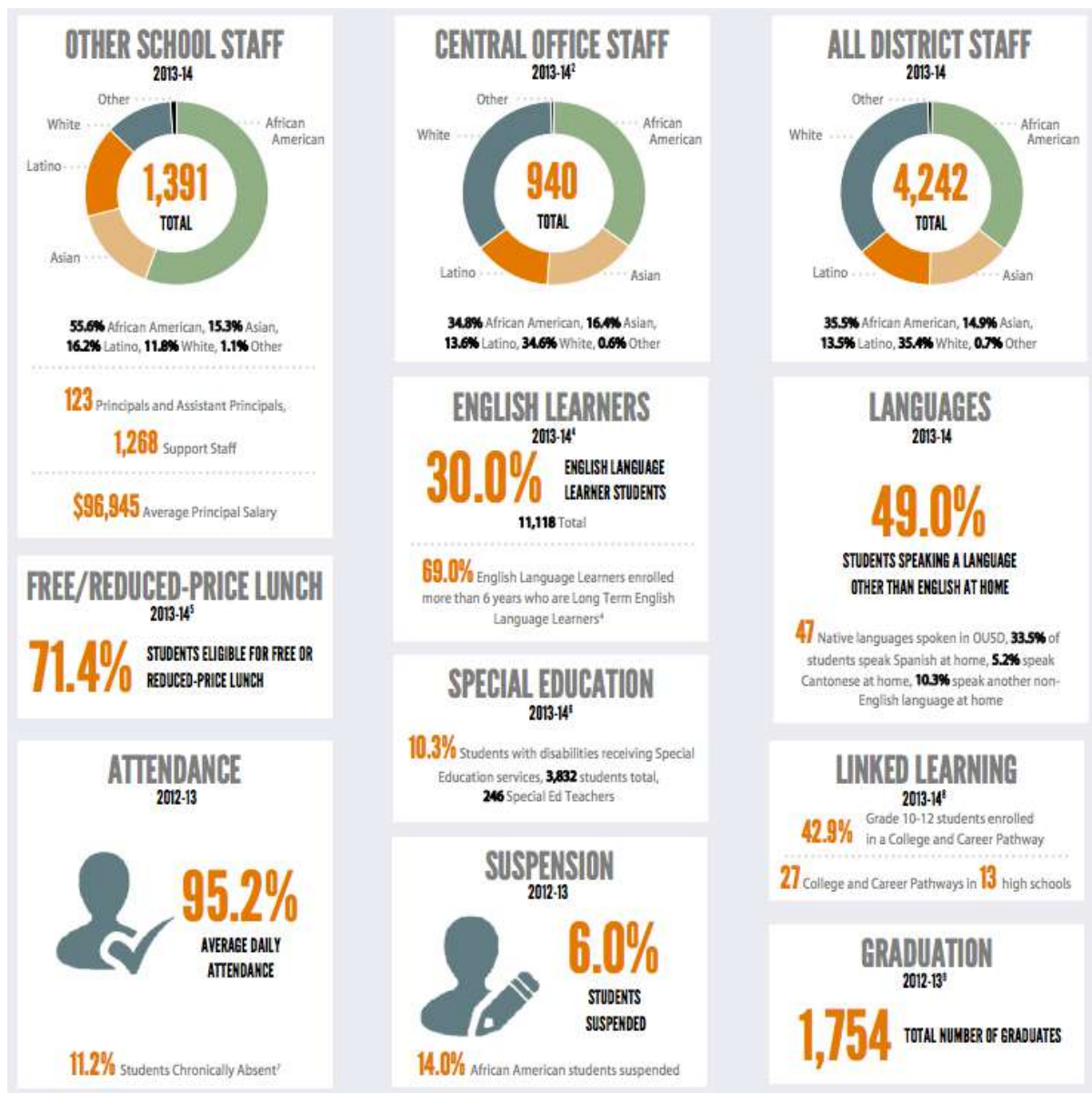
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About the District Described in This Plan

The Oakland Unified School District (OUSD) is the State of California's most improved urban school district over the past eight years, as measured by Academic Performance Index (API), California's primary metric for measuring student achievement. During this time, the District's students have benefited from 128 points of API growth and a focus on the whole child embodied by OUSD's "Community Schools, Thriving Students" vision of a full-service community school district. In this model, every school site offers high levels of learning along with physical health, mental health, dental and eye care; nutrition, physical education, recreation, before-school and afterschool programs; housing, employment, parenting and language acquisition courses and a range of other programs. Social and human services are not seen as extra or add-ons in these schools. Instead, collaboration in service of children and families is how they consistently behave.

The following charts capture the District demographics at a glance.





District Mission Statement

Oakland Unified is in the process of transitioning to a new paradigm that is based upon building safe and high quality full service community schools. The intent of this program is to move to a system that supports students in a structure that includes equity of access to resources so that every student will have high quality, effective instruction and be prepared to succeed in college and careers. The support system would be a comprehensive continuous and linked series of programs that include educational, social, and medical services.

The District's five-year strategic plan, Community Schools, Thriving Students envisions the development of each Oakland public school into a Full Service Community School (FSCS) within a Full Service Community District as an essential goal to carrying out its vision of graduating each student college and career ready. Many elements of the School Quality Improvement System (CORE Waiver) have been initiated in OUSD. The strategic plan is the foundation for the work of the district and the strategic work of the plan is in strong alignment with CORE waiver work areas.



Technology Vision

A District in which all students are empowered to realize their own unique talents

Technology Mission

Implement Technology to create and support the best possible learning environment for students, staff, and the community

Priorities

Student Learning
Productivity
Data and Assessment
Safety, Ethics, & Security
Support Teachers & Staff
Infrastructure
Equity & Access

Student Learning

- Implement learning resources that embrace and exploit the flexibility and power of technology to reach all students with differentiated needs
- Students have information access anytime and anywhere
- Use technology to enhance Science, Technology, Engineering, and Math (STEM) learning and Digital Media Arts
- Promote Personalized Learning
- Engage the community both locally and globally

Productivity

- Provide technology tools for productivity and efficiency across the District
- Enable students to use technology to demonstrate authentic learning and 21st Century Skills
- Students use technology to demonstrate proficiency in meeting existing state adopted standards and new Common Core State Standards

Data and Assessment

- Provide accurate and up-to-date assessments and reporting that give timely and actionable feedback
- Use technology for formative and summative assessments with meaningful data analysis
- Use simulations, collaboration, virtual worlds, and authentic presentations for assessments to engage and motivate students
- Data systems are online, linked, and appropriately available

Support Teachers and Staff

- Educators and students have access to technology-based content, resources, and tools
- Use collaboration technologies to develop communities of practice
- Provide professional learning experiences powered by technology
- Use video resources and technology to connect and share

Infrastructure

- Ensure students and educators have broadband access to the Internet and wireless connectivity both in and out of school
- Every student and educator has at least one Internet access device and appropriate software to use in and out of school
- Facilities have appropriate electrical capacity, wiring, and cooling to support technolog

Safety and Ethics

- All staff receive on-going professional development in appropriate and ethical use of information technology
- All students, staff, and parents understand the District policies for technology, communication, and data
- All students and staff have safe and appropriate access to the Internet
- District data is secure yet available

Equity and Access

- The District adopts minimum standards for technology for each level across school sites
- The District prioritizes allocating funds for technology
- The District provides staff to support technology
- The District provides staff development for technology

EXECUTIVE SUMMARY

This Technology Plan describes the Oakland Unified School District's (OUSD's) plan to use technology to achieve its mission.

This technology plan covers four years: July 1, 2014 – June 30, 2018.

This document is organized around these key components:

- Curriculum
- Professional Development
- Infrastructure-Hardware-Technical Support and Software
- Funding and Budget
- Monitoring and Evaluation.

Curriculum

All schools are committed to all students attaining the academic and non-academic skills and knowledge necessary to be an educated person in the 21st century.

The District is committed to helping all students meet grade level expectations. Schools have intervention programs in place to assist students in need of extra help (and their families). Examples of interventions include after school programs, specialized assistance during the school day, summer school, grouping practices within the classroom, and many more. We count on parent support and student commitment to make sure all students meet these higher expectations.

Oakland Unified School District's Local Education Agency (LEA) Plan 2008-2014

Professional Development

Ongoing staff development in technology will support the professional growth of staff members. The success of a strong technology program correlates with teacher comfort with the available hardware and software. Training will be thorough and ongoing, with technical support available to all teachers and staff from general technology skills to specific application software. Staff development is accomplished through a variety of methods: conventional classes, videos, webinars, online tutorials, conference attendance, and peer mentoring. Staff development encourages broad-based participation. Acquisition of various technologies and tools will improve staff productivity and enhance the curriculum.

The District has a full time Education Technology Specialist (Education Technologist) and is building a state-of-the-art Technology Training Lab. Both demonstrate the commitment the District has made to training.

Infrastructure-Hardware-Technical Support and Software

Driven by curriculum-centered objectives, OUSD specifies a core set of technical capabilities and network services to be provided. We implement an infrastructure that enables students and to easily use technology and online resources to achieve their academic goals.

Goals for this component are:

- Upgrading the network to enable all stakeholders to easily access, store, analyze, and share resources
- Enable 360 degree communication among stakeholders
- Acquisition of Chromebooks to provide equity of access based on Common Core test takers
- Acquisition of a base software and resources that connect all areas of the curriculum and improve productivity, teaching, and learning
- Continuous improvement of the support/escalation process

Monitoring and Evaluation

A process of monitoring and evaluation should steer the use and acquisition of technology so that the curriculum and the educational process remain central.

Evaluation procedures include:

- Regular meetings between Technology and Business Services Department
- Regular meetings with Leadership, Curriculum and Instruction (LCI)
- Regular meetings with the Quality, Analytics, and Assessment (QAA)
- Monthly meetings of the EdTech Committee
- Biannual review and update of Technology Plan by IT Officer
- Evaluation of technology used by the classroom teacher to enhance curriculum
- Parent/student/staff survey.

1. PLAN DURATION

1a. Plan Duration

The plan should guide the district's use of education technology for the next three to five years

This technology plan covers four years: July 1, 2014 – June 30, 2018.

2. STAKEHOLDERS

Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process

Oakland Unified School District's IT Officer has led the development of this technology plan with the EdTech Committee which includes members from Technology Services, Leadership, Curriculum & Instruction, and Assessment. This current plan extends the concepts from the previously approved plan (2011-2014) and adds data from work in Fall 2013 including the NextGen Systems Personalized Learning planning grant, response to the award of \$6.9 million in one-time money from the California Department of Education for Common Core implementation (Common Core), and the OUSD plan for the California Organization to Reform Education (CORE) waiver. Engagement and work from the 2013 initiatives, NextGen Systems, Common Core, and CORE waiver allowed the Education Technology Team, with members from across the district to reach out to many stake holders, while not namely for the "Technology Plan" to learn about what is needed to improve technology's role in curriculum and student success.

OUSD considers support from the following stakeholders groups as critical to an optimal Technology Plan implementation:

Staff
Principals
Teachers
Students
Classified Staff
District Leadership
Union Leadership
Families
Parents
Students
Cabinet
Principal's Advisory Committee (PAC)
Community
The Oakland Technology Exchange (OTXWest)
Elected Officials

Input for this Technology Plan was most recently combined with gathering input for "Tech Readiness" for the Common Core and Smarter Balanced Assessment Consortium's (SBAC) online testing and the subsequent Chromebook Deployment engagements and the Gates Foundation Next Gen Systems planning grant for Personalized Learning. The feedback from these particular initiatives were fitting for developing and up-to-date Technology Plan.

Meetings about Tech Readiness and the Next Gen Systems personalized learning initiative included formal presentations to and feedback from the cabinet (top district leadership), the PAC, the Board of Education, all principals, district staff invited to Chabot Elementary school, edtech advisory group, and parents and community members at a Family School Community Program (FSCP) engagements.

Likewise feedback was drawn from input for the CORE waiver implementation as well as the Local Control Accountability Plans prepared for the Local Control Funding Formula instituted in 2013-2014.

In 2013-2014, the Ed Tech committee with members from Technology, LCI (Leadership, Curriculum & Instruction) and QAA (Quality, Accountability, & Assessment) worked together combining work for the NextGen Systems Personalized Learning planning grant, Common Core, SBAC readiness, CORE Waiver, LCAP, and the Technology Plan.

3. CURRICULUM

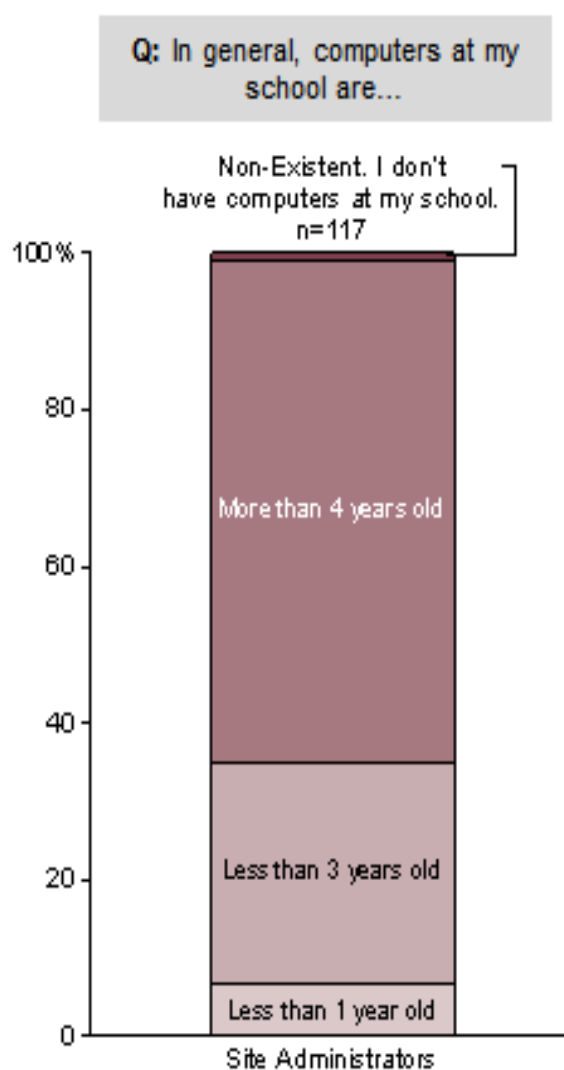
3a. Teachers' and Students' Access to Technology

Description of teachers' and students' current access to technology tools both during the school day and outside of school hours

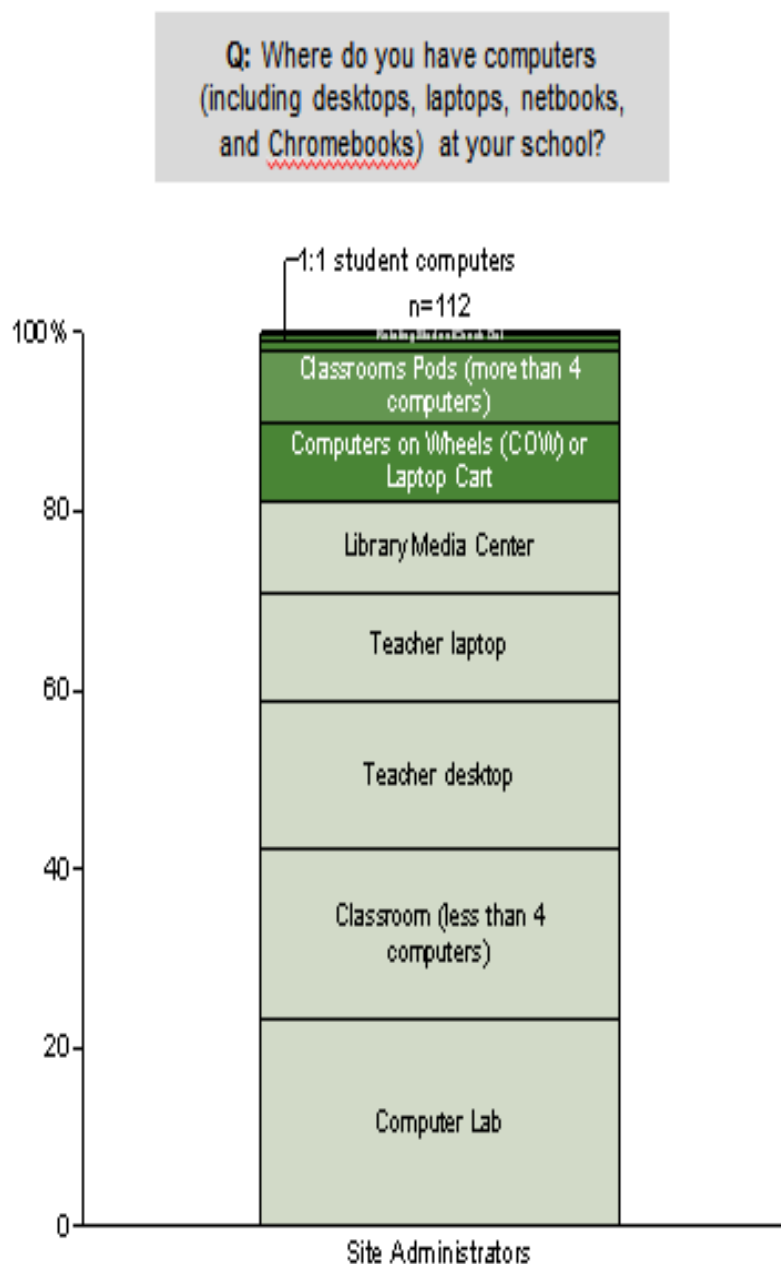
Background

Number and Location of Computers

In a recent survey (Fall 2013) as part of our engagements, the location and quality as measured in age do not paint a good picture, district-wide from the staff's point of view.



Source: OUSD SBAC Readiness Survey, 2013



Source: OUSD SBAC Readiness Survey, 2013

The most recent survey done in 2014 shows the following for managed Windows-based PC's at each school. Note these totals do not include Bring Your Own Device (BYOD), Macintoshes, donated, or otherwise unofficial, unmanaged devices.

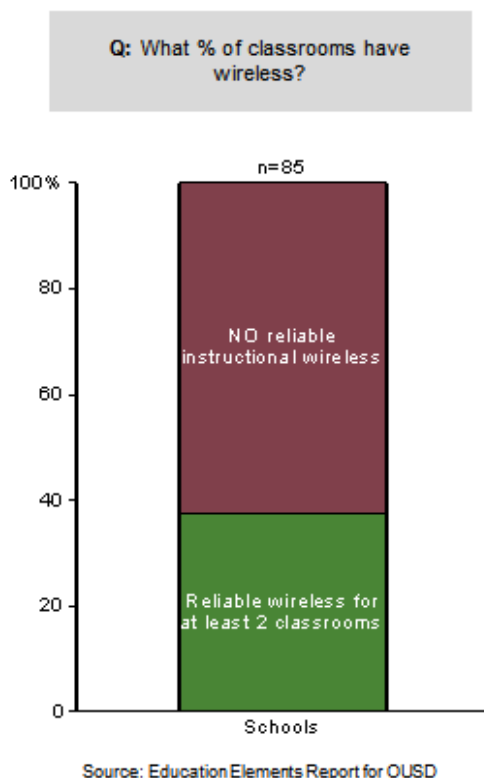
School	Total Managed PC's	School	Total Managed PC's	School	Total Managed PC's
Allendale	62	Fremont	461	MLK	105
Arts/Far West	65	Frick	119	Montclair	37
Ascend	5	Fruitvale	36	Montera	81
B&G Facilities	67	Garfield	96	Oakland High	324
Bella Vista	41	Glenview	17	Oakland international	271
Bella Vista CDC	4	Grass Valley	27	Oakland Tec	406
Bret Harte	82	Highland (Rise)	149	Parker	64
Broadway	202	Hoover	56	Peralta	33
Brookfield	42	Horace Mann	76	Piedmont	59
Bunche	38	Howard	57	Prescott	13
Burckhalter	77	Jefferson	76	Purchase (with Food Net)	43
Carl Munck	64	Jefferson CDC	1	Redwood Heights	42
Caesar Chavez	60	Joaquin Miller	4	Roosevelt	27
Castlemont	224	Kaiser	5	Sankofa/Washington	18
Centrol Infantil De La Raza	1	King Estates	129	Sequoia	36
Chabot	15	La Escuelita	34	Skyline	287
Claremont	6	Lafayette	35	Sobranter park	13
Cleveland	20	Lakeview	169	Stonhurst Esperanza	144
Cole	262	Laurel	21	Street Academy	2
Coliseum College Prep	147	Life Academy	56	Thornhill	8
Community Day	48	Lincoln	183	Tilden - John Swett	37
Cox/Reach	68	Lockwood	93	United for Success	147
Crocker Highlands	3	Madison	124	Urban Promise	87
Dewey	154	Manzanita	53	Washington	4
East Oakland Pride	49	Marcus Foster	86	West Lake	18
Edna Brewer	177	Markham	48	West Oakland Middle	110
Elmhurst	133	Maxwell Park	6	Whittier (Leaf)	54
Emerson	46	McClymonds	205	Woodland	106
Explore	14	Melrose	13	Yuk Yau	1
Franklin	61	Met West	135	Total	7396

As a result of the survey and initial inventory work, it was recommended that the district purchase Dell Chromebooks for each school based on the number of SBAC test takers. The goal was to provide an equitable, supportable, standardized platform for each school to take the SBAC online test and to have a learning platform for the Common Core. The result was to more than double our inventory of computers. The following chart shows the additional computers (Chromebooks) that each school received in Spring 2014.

School	Chromebooks	School	Chromebooks	School	Chromebooks
ALLEDALE	102	PIEDMONT	68	MONTERA	340
BELLA VISTA	102	REDWOOD HEIGHTS	102	ROOSEVELT	204
BROOKFIELD ES	102	COMMUNITY UNITED ES	68	WESTLAKE	204
BURCKHALTER	68	SEQUOIA	102	MADISON MS	170
CHABOT	136	SOBRANTE PARK	68	ELMHURST COMM PREP	136
East Oakland PRIDE	102	THORNHILL	68	ALLIANCE ACADEMY	170
CLEVELAND	68	ACORN WOODLAND	68	ROOTS MS	136
CROCKER HIGHLANDS SCHOOL	102	Howard	68	UNITED For SUCCESS	170
GREENLEAF	136	CARL MUNCK	68	COLISEUM COLLEGE PREP	136
GLOBAL FAMILY	102	HOOVER	68	MELROSE LEADERSHIP	102
EMERSON	68	KAISER	68	URBAN PROMISE	136
FRANKLIN	170	KOREMATSU	102	COMMUNITY DAY MS	34
FRUITVALE	102	MANZANITA SEED	68	CASTLEMONT	68
GARFIELD	102	ESPERANZA	68	FREMONT	102
GLENVIEW	102	BRIDGES ACADEMY	102	McCLYMONDS HS	68
LA ESCUELITA	68	MANZANITA COMMUNITY	68	OAKLAND HIGH SCHOOL	170
GRASS VALLEY	68	ENCOMPASS	68	OAKLAND TECH	204
FUTURES at LOCKWOOD	68	MLK	68	SKYLINE	170
NEW HIGHLAND	68	PRESCOTT	68	BUNCHE ACADEMY	34
HILLCREST SCHOOL	102	International Community School	68	DEWEY	34
LAFAYETTE	68	THINK COLLEGE NOW	68	Gateway	34
LAUREL	102	SANKOFA	68	Street	34
LINCOLN	136	RISE	68	Sojourner Truth	34
HORACE MANN	68	REACH ACADEMY	68	COMMUNITY-DAY HIGH SCHOOL	34
MARKHAM SCHOOL	68	CLAREMONT	170	LIFE ACADEMY	102
JOAQUIN MILLER	102	FRICK MS	136	METWEST	34
MONTCLAIR	102	WEST OAKLAND MS	102	RUDSDALE	34
PARKER SCHOOL	68	BRET HARTE	204	Oakland International HS	68
PERALTA	102	BREWER	306		
				8602	

However, there was also the problem of not having sufficient wireless access at the sites. The following chart shows staff perception of wireless in a survey as part of our engagement and planning efforts.

60% of schools lack widespread and reliable wireless Internet access



To ameliorate the issues with wireless, each Chromebook cart came with a wireless access point to provide wireless access where ever the cart was rolled. See later in the plan for longer-term solutions.

Teacher Technology Access

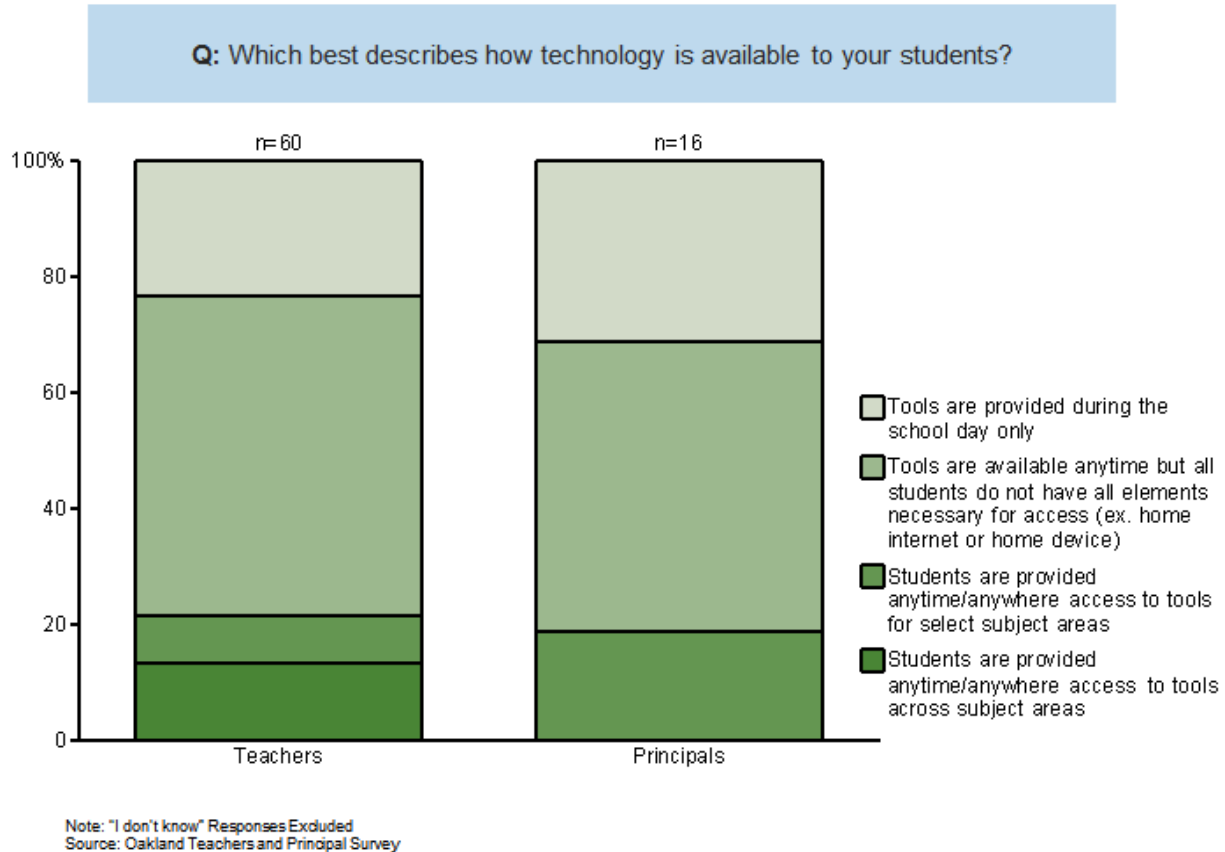
Teachers have access to computers in their classrooms or in teacher workrooms or other non-classroom locations. This access is determined by site policy and varies from school-to-school. In all schools, teachers have some access to network connected computers before, during and after the work day. Currently, the teacher access to computers and peripherals is a building budget choice so technology is varied across sites. Very recently, 500 teacher and teacher leader Chromebooks were purchased to spearhead a central support of supportable, equitable, and standardized technology for staff.

Access During Non-School Hours

Schools make technology available to students in before and after-school programs funded through 21st Century grant programs and other sources. Several community technology centers such as Eastmont Computing Center provide structured after school and weekend technology access.

The follow survey results as part of our stakeholder engagement in 2013 shows a sampling of responses from OUSD teachers and principals.

Student access to technology-based learning tools is generally unavailable at home



In addition technology access is provided by many Oakland Public Library and Parks and Recreation locations. The Oakland Technology Exchange (OTXWest) a program of the Marcus Foster Educational Institute (MFEI) has placed several thousand computers in low income Oakland USD student homes as part of the Urban Math Project grant program. For these families OTX provides low cost Internet access through a special arrangement with california.com.

Access to Technology During Instructional Time

Access to technology during class time varies. We are moving from a computer lab and computers in the back of the classroom model to a blended or personalized learning model when it comes to access to technology during instructional time. We are working on instructional shift consistent with the Common Core. Some of the shifts have the teacher being more of the “guide on the side” rather than the “sage on the stage.” Access to technology in this model become more important as the district moves toward blended and personalized learning.

The Blended Learning pilots at Korematsu, Encompass Academy, Madison Middle, Elmhurst Community Prep, Bret Harte Middle, Brewer Middle, and ASCEND schools serve as rich early models of early adopter designs and teaching practices in our own city. “Our blended pilot principals, teachers and students are pioneering this work in Oakland, learning how best to use new tools to accelerate student learning. We have already learned so much about what energizes students and teachers to be successful in this work,” says Rogers’ Director of Blended Learning, Greg Klein. The NextGen Systems planning grant in Fall of 2013 was an opportunity to further learn from the best thinking in the field at a national level and be as nimble as possible in this fast-moving design work that will change access to technology during instructional time.

The deployment of nearly 10,000 Chromebooks in winter of 2014 lays the groundwork to extensive use of technology during instructional time.

Access to Technology Outside of Instructional Time

Students have access to technology outside of schools The Alameda County Library System provides additional access to technology for students and teachers outside of the school day.

Also, OTXWest leads an innovative program to provide home computers as well as computers to after school organizations. OTX West is dedicated to eliminating the digital divide in Oakland, California. They seek to enhance educational opportunities and increase the accessibility of technology to low-income members of our community. OTX West recognizes the need for people of all socioeconomic and cultural backgrounds to gain access to the digital word by owning a home computer and acquiring technological knowledge and skills in steps toward individual self-sufficiency and empowerment. The organization employs an environmentally sustainable, re-use model by refurbishing donated personal computers and other technological equipment and supplying them to students who successfully complete our training class. They take proactive measures to directly confront persisting inequalities by teaching basic computer skills to parents and children and providing ongoing technical support free of charge.

Access to Telecommunication Technology

All schools and classrooms have a telecommunications system which includes voicemail for every teacher.

All classrooms are wired with at least one drop (connection) to the District network and Internet with the standard being 8 drops. The connections at the elementary schools are presently at 20

Mb/sec., middle schools are at 100Mb/sec., and high schools have a 500 Mb/sec. connection. Currently they all share a redundant 2GB connection to the Internet.

All schools have District supported wireless networking. The availability ranges from school-wide to key hot spots within a school.

Access to Appropriate Technology for Students with Special Needs

In order to assure that students with special needs have equal access to technology, the District Program for Exceptional Children (PEC) Department works with individual case-workers to provide these students with appropriate assistive technologies. There is an instructional specialist in Special Services who works closely with the Technology Department to bring appropriate technology to special needs students.

3b. District's current use of Hardware and Software

Description of the district's current use of hardware and software to support teaching and learning

Elementary Schools

At elementary schools the hardware listed in section 3a and software (mostly online software as a service) is used to support teaching and learning. At its simplest level, teachers use technology to prepare, teach, evaluate, and support student learning. Students use technology to research, collaborate, experiment, learn, present, communicate, and assess learning.

Secondary Schools

At secondary schools, similarly, the hardware listed in section 3a and software (mostly online software as a service) is used to support teaching and learning. At its simplest level, teachers use technology to prepare, teach, evaluate, and support student learning. Students use technology to research, collaborate, experiment, learn, present, communicate, and assess learning. Additionally, these students use professional software from Apple, Microsoft, Adobe and Autodesk as part of our Linked Learning programs that prepare students for college and career.

Additional Uses of Technology to Support Teaching and Learning

Student proficiency levels and standards in technology have been developed for grades K-6 and 9-12. This framework is in the process of being revised in order to integrate them along with the Information Literacy Standards, into the academic curriculum. The Technology Standards will also be aligned with the ISTE National Educational Technology Standards for Students. District technology proficiency levels and standards for grades 7 and 8 have not yet been developed.

The Information Literacy Standards have been developed for all grades K-12. The information literacy curriculum and framework has recently been revised to reflect the standards from the California School Library Association's publication: *Standards and Guidelines for Strong School Libraries*. These standards as well as the technology standards are successfully being implemented at all OUSD high schools, due primarily to the presence of a full-time Library Media Teacher who is available to collaborate with the content teachers.

Most teachers in the district use technology to create instructional materials and presentations, develop lesson plans, record grades, and monitor student progress. Many teachers are using the Internet to find teaching resources, such as model lesson plans, related websites and student activities. Some teachers at every site use TVs or LCD projectors with computers as well as other media on a regular basis to present classroom lessons. More teachers every year are using computers as a communication tool with parents, administrators, colleagues, and students.

Electronic learning resources used in the classroom to support achievement in core academic programs include the Google Apps, and Microsoft Office suite or equivalent, PLATO, Read 180, CyberHigh, Accelerated Reader, Accelerated Math, and media included with State adopted classroom materials purchased by OUSD. Our Blended Learning pilots and leadership from LCI have kick started the use of online learning resources such as ST Math, Achieve 3000, Engrade, Schoology, Illuminate, i-Ready, Scholastic Reading Inventory, to name some.

SchoolWires is the district web site tool and Aires is the student information system (SIS). The OUSD budget gives each school site the freedom to purchase electronic learning resources most appropriate to their site's needs.

Some teachers use class websites and/or email to facilitate two-way communication between school and home. All teachers now have a voicemail system available, and some are utilizing this as a communication tool with parents. Parents also have access to the automated library catalog and research data base websites through the district website.

All students and staff members are accountable for appropriate use of technology as documented the Acceptable Use Policy.

3c. District's Curricular Goals and Academic Content Standards

Summary of the district's curricular goals that are supported by this tech plan

The Oakland Unified School District's Technology Plan is guided by the principle that technology must help drive student achievement. The plan is aligned with and supports overall District planning efforts.

Oakland Unified is in the process of transitioning to a new paradigm that is based upon building safe and high quality full service community schools. The intent of this program is to move to a system that supports students in a structure that includes equity of access to resources so that every student will have high quality, effective instruction and be prepared to succeed in college and careers. The support system would be a comprehensive continuous and linked series of programs that include educational, social, and medical services.

Our district goal of creating and maintaining community-based schools is an overall blueprint for creating safe and high quality schools. The Full Service Community District is a complex plan focusing on coordinating, aligning and leveraging the community's multiple assets to maximize student potential.

The three priorities of the Full Service Community District are:

- Priority 1 – Safe, Healthy and Supportive Schools
- Priority 2 – High Quality, Effective Instruction
- Priority 3 – Literacy for College and Career Readiness

Technology will play a crucial role in achieving these priorities.

The overall goals of this plan reflect and support the OUSD strategic planning efforts. To that end, this Plan supports the following:

- All students will benefit from the coordination of school and community services, increased support for families, and aggregation and dissemination of high quality data to improve instruction and teacher effectiveness.
- All students will be proficient or advanced on the math and language arts portions of the SBAC (formerly CST).
- All students will graduate prepared to succeed in college and the workplace.

Each individual school site is required to develop an annual comprehensive plan addressing specific learning needs of their students and incorporating standards-based curriculum goals that support the general district curricular goals. In the past, a technology component has been a recommended, but not required part of the Single Plan for Student Achievement (SPSA).

Today we have the CSSSP, a custom online tool to build a site plan tied to the site budget. The district standards are aligned with the state standards in all content areas, and the state frameworks and the district content standards have been circulated to all teachers and administrators. The district content standards for math and language arts are posted on the district web site, which also contains links to the state content standards. All professional development, conducted by the district and other professional development providers, is standards-based and aligned with the district curricular goals.

The District has prioritized the adoption of the Common Core State Standards and will be fully implemented in 2014-2015.

The Common Core State Standards (CCSS) are a coherent progression of learning expectations in English language arts and mathematics designed to prepare k-12 students for college and career success. The CCSS communicate what is expected of students at each grade level, putting students, parents, teachers, and school administrators on the same page, while working toward shared goals.

How were the standards developed?

The CCSS effort was launched in June 2009, through a partnership of the Council of Chief State School Officers and the National Governors Association working together with parents, teachers, school administrators, and experts from across the country. National and international research, evidence, and standards--including standards from countries that are often recognized for high quality education--informed development of the CCSS. After public comment, the final version of the CCSS was released in June 2010.

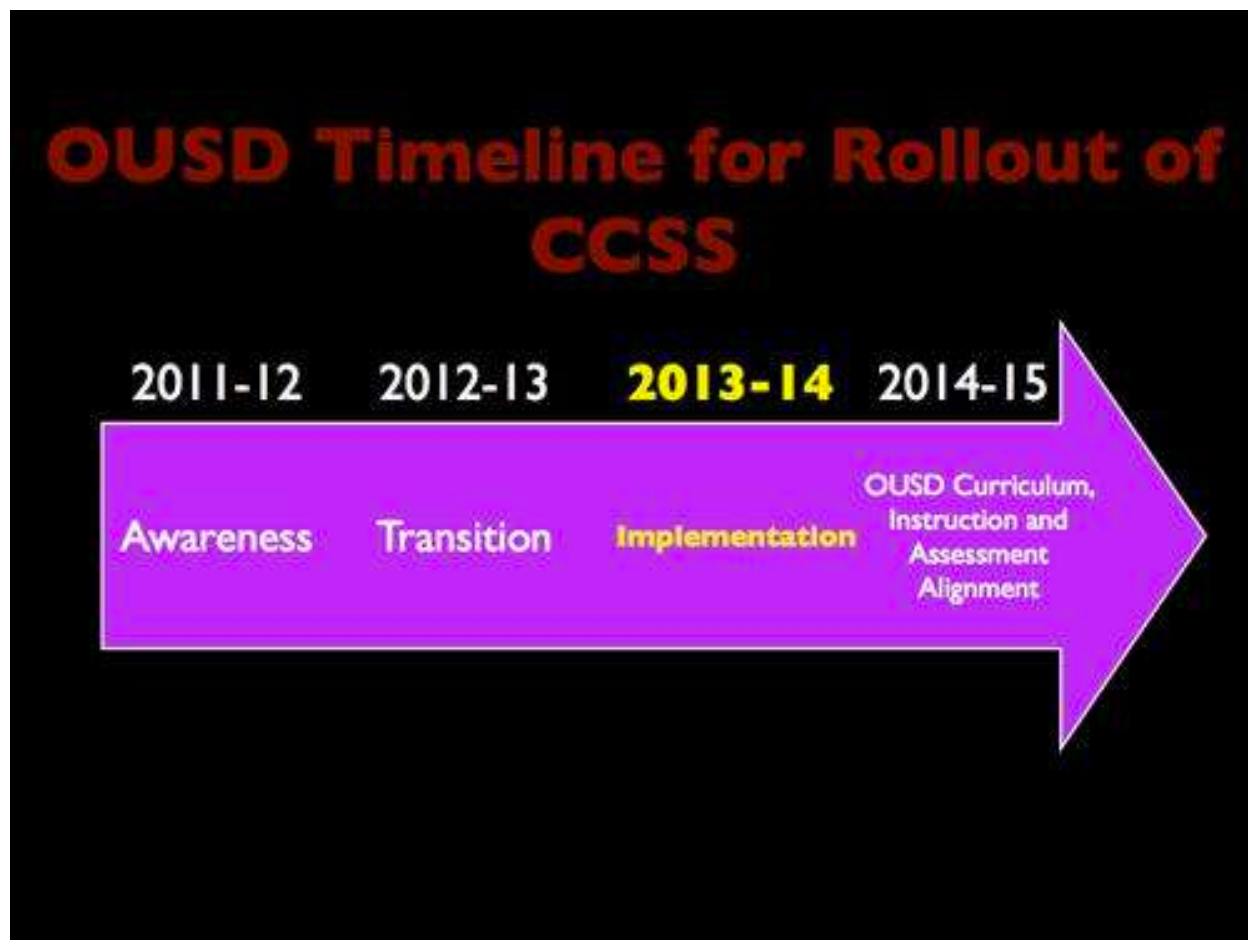
What are the benefits for parents of common standards?

- A common set of standards ensures that all students, no matter where they live, will be focused on graduating from high school prepared for postsecondary education and careers. In an increasingly mobile society, families with children transferring to new schools will not have to adjust to new learning expectations. Standard will be the same for all students in states adopting the CCSS, making transitions smoother for students.
- In a competitive global economy, all students must compete with not only American peers in other states, but with students from around the world. The CCSS were designed to prepare students to succeed in this environment.
- Common standards will facilitate conversation among parents, teachers, and children about high level academic learning goals. Because common standards define exactly what students should know and be able to do at each grade level, they will help parents hold their schools accountable for teaching students in ways that support learning of the important content and skills defined by the CCSS.
- With adoption of the CCSS, states and districts can share experiences, methods of assessment, teaching practices, instructional materials, and approaches to helping parents support and reinforce learning at home.

How will the standards be assessed?

Two consortia of states--the SMARTER Balanced Assessment Consortium and the Partnership for the Assessment of Readiness for College and Careers--have been awarded federal funding to develop an assessment system aligned with the CCSS. California is part of the [SMARTER](#) Balanced Assessment Consortium (SBAC). Different types of assessments to measure students' progress during and at the end of the school year will be designed for students in grades 3-12. OUSD successfully completed the SBAC Field Test in Spring 2014.

In the spring of 2014-15, the District will officially adopt the SMARTER balanced assessments aligned with the California Common Core Content Standards. In the 2011-12 school year, the District focused on developing **Awareness** in our OUSD learning community. In the 2012-13 **Transition** year, we embraced the opportunity to work with teacher leaders from each site to create and implement sample units and align our understanding of rigorous learning experiences and assessment across the District. 2013-14 will brought us to a fuller **Implementation** of these learning experiences and assessments. In 2014-15, all learning experiences and assessments will be **aligned** as we prepare for our first participation in the new Common Core-aligned assessments.



Smarter Balanced Assessment Consortium (SBAC) is the new computer-based state test to measure the teaching and learning of the common core standards. SBAC will be fully implemented in spring 2015. SBAC replaces most of the previous paper and pencil state testing students were previously required to take.

3d. Goals and Plan for Technology to Improve Teaching and Learning

List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals

The following technology goals and implementation plans were developed to support the district curricular goals and to enhance student achievement of the academic content standards. The major focus of these goals is to use technology and information literacy to support the teaching and learning of standards-based curriculum for all students, including students with special needs and students who are less successful.

Goal 3d.1: Students will become proficient in Math and Language Arts Common Core State Standards**Objective: By June 2018**

3.d.1 100% of the students will use technology and electronic resources to enhance their achievement of Common Core Standards as measured by steady increase in SBAC scores from Spring 2015 scores.

Benchmarks:

3.d.1.a By June 2015, 50% of the students will use technology and electronic resources to enhance their achievement of Common Core Standards

3.d.1.b By June 2016, 75% of the students will use technology and electronic resources to enhance their achievement of Common Core Standards

3.d.1.c By June 2017, 90% of the students will use technology and electronic resources to enhance their achievement of Common Core Standards

3.d.1.d By June 2018, 100% of the students will use technology and electronic resources to enhance their achievement of Common Core Standards

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
K through 12 students will use the electronic resources that accompany the state adopted English Language Arts (ELA) and Math textbooks.	Yearly	Catalog of resources used on Chromebook	Education Technologist
Catalog websites and academic resources onto a website.	Yearly	Audit catalog	Education Technologist
Increase the number of applications that are connected to the Student Information System and login system	Yearly	Audit catalog	IT Officer
Measure usage of applications with a reporting tool	Yearly	Assess usage of equipment	IT Officer

Goal 3d.2: Students regularly access online resources and applications that improve and personalize learning.

Objective: By June 2018

3.d.2 100% of all students will regularly access online resources and applications to improve and personalize learning as measured by use of network resources reported by online monitoring

Benchmarks:

3.d.2.a By June 2015, 50% of all students will regularly access online resources and applications to improve and personalize learning.

3.d.2.b By June 2016, 75% of all students will regularly access online resources and applications to improve and personalize learning.

3.d.2.c By June 2017, 90% of all students will regularly access online resources and applications to improve and personalize learning.

3.d.2.d By June 2018, 100% of all students will regularly access online resources and applications to improve and personalize learning.

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Install: High-speed Internet access upgrades (20-100 Mb/sec from each elementary school, 100 Mb/sec from each Middle school, 500 Mb/sec from each high school to provide communication, application services, and resources Minimum 1000 Mb/sec from each school to provide communication, application services, and resources (see chart below) Cabling and switch upgrades as necessary to allow 1000 Mb/sec bandwidth Wireless technology to allow users to reliably work anywhere at all school sites. Minimum 1 wireless access point per classroom	2014-2015 2015-2016 2015-2016 2015-2016	Status and completion memos from IT Officer	IT Officer
Implement cloud file storage	2015-2016	Check user lists and report	IT Officer
Implement Google Apps and Microsoft 365	2015-2016	Check user lists and report	IT Officer
Implement web sign-on with Google ID	2015-2016	Check User lists	IT Officer
Quarterly reports on Internet usage	Quarterly	Reports shared at Principal Meetings	IT Officer

Plan based on broadband recommendation of the State Educational Technology Directors Association, as published in The Broadband Imperative

Broadband Access for Teaching, Learning and School Operations	2014-15 School Year Target	2017-18 School Year Target
An external Internet connection to the Internet Service Provider (ISP)	At least 100 Mbps per 1,000 students/staff	At least 1 Gbps per 1,000 students/staff
Internal wide area network (WAN) connections from the district to each school and among schools within the district	At least 1 Gbps per 1,000 students/staff	At least 10 Gbps per 1,000 students/staff

3e. Goals and Plan for Acquiring Technology Skills and Information Literacy Skills

List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.

It is a district curricular goal that all students will acquire technology and information literacy skills needed to succeed in the classroom and in the 21st Century. Students will acquire these skills through their integration with the Common Core State Standards. Technology and information literacy enhance students' ability to learn the standards and provides additional opportunities for all students. The District's technology and information literacy curriculum and standards have been written and will be updated to meet or exceed the Common Core and state standards for technology and information literacy. Lessons, best practices, and strategies will be developed across curricula, and implemented by content teachers, computer/technology teachers, and library media teachers.

In March of 2013 the State Superintendent of Public Instruction announced that the California Department of Education (CDE) had joined the national Partnership for 21st Century Skills (P21) network of 18 states, designed to teach every student real-world skills to meet the needs of a competitive global economy. "California is part of a growing national movement to teach students the critical thinking and problem-solving skills they need for college and careers," said Torlakson. "Forging a partnership with P21 provides California with additional tools and resources to implement the Common Core State Standards and our newly revised Career Technical Education Standards. This partnership underscores our commitment to prepare every student for the challenges of a changing world."

P21 is a national organization based in Washington, D.C. and a catalyst in the 21st Century Skills Movement. P21 works with education leaders, the business community, and state and federal policymakers to ensure that the U.S. education system equips students with rigorous

content knowledge and the skills they need for college, career, and citizenship. OUSD plans to follow the CDE's commitment and cull the resources that the P21 membership will offer.

Oakland Unified School District seeks to adopt the International Society for Technology in Education (ISTE) Technology Foundations Standards for Students as its model for student proficiency. All students use technology in all classes so that the acquisition of a particular technology skill is embedded in the learning process. Students at all schools receive support from all of their teachers in the use of technologies available for the classroom. Advanced techniques are taught in the specialized media courses and in the various electives. Techniques are shared among the students and staff, and a culture of technology-based learning supports every student in advancing the skill sequence of the digital age.

“Technology skills” encompasses technical use proficiency, as well as information literacy. We are using this definition of information literacy from the National Forum on Information Literacy:

The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand.¹

Goal 3e.1: Students will acquire technological and information literacy skills, including cybersafety – as defined by ISTE NETS*S Standards and E-rate compliance standards

Objective: By June 2018

3.e.1 100% of the students will complete activities or projects that demonstrate their mastery of the grade level appropriate technology information literacy and cybersafety standards and measured by teachers certifying completion and reported by the principal.

Benchmarks:

3.e.1.a By June 2015, 100% of the students will complete activities or projects that demonstrate their mastery of the grade level appropriate technology and information literacy and cybersafety standards.

3.e.1.b By June 2016, 100% of the current students will complete activities or projects that demonstrate their mastery of the grade level appropriate technology and information literacy and cybersafety standards.

3.e.1.c By June 2017, 100% of the current students will complete activities or projects that demonstrate their mastery of the grade level appropriate technology and information literacy and cybersafety standards.

3.e.1.d By June 2018, 100% of the current students will complete activities or projects that demonstrate their mastery of the grade level appropriate technology and information literacy and cybersafety standards.

¹ <http://www.infolit.org/definitions.html>

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Adopt ISTE NETS*S	2015-2016	Standards adopted	Education Technologist
Students in grades K through 12 will complete assignments or activities that use grade level technology, information literacy, and cybersafety standards integrated with core curriculum standards.	2015- 2017	Note technology standards used during Instructional Rounds	Principals
Students in grades 4 through 12 will use technology and information literacy standards to demonstrate college and career readiness skills as defined by the district standard	2015- 2017	Projects used for summative evaluation	Principals
Students in the 12th grade will complete a senior Linked Learning program/project that demonstrates college and career readiness.	2016- 2018	Presentations used for summative evaluation	Principals

3f. Goals and Plan for Appropriate and Ethical Use of Technology

List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students and teachers can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism

All students and teachers will receive annual training in the ethical use of technology. Currently, California AB 307/CIPA compliance calls for annual instruction for all students, so instruction for all take place in year 1 and continue through years 2-4. They will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing via OUSD's Appropriate Use Policy and related Board policies.

Goal 3f.1: All teachers, staff, and students will receive training on the appropriate and ethical use of information technology.

Objective: By June 2018

3.f.1 100% of teachers and staff will receive training on the appropriate and ethical use of information technology.

Benchmarks:

3.f.1.a By June 2015, 100% of teachers and staff will receive basic training on the appropriate and ethical use of information technology.

3.f.1.b By June 2016, 100% of teachers and staff will receive advanced training on the appropriate and ethical use of information technology

3.f.1.c By June 2017, 100% of teachers and staff will receive more training on the appropriate and ethical use of information technology

3.f.1.d By June 2018, 100% of teachers and staff will receive more training on the appropriate and ethical use of information technology

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Offer all students and staff cyber ethics, copyright, Fair Use, and FIRPA training. (Available on the District's Risk Management training site and approved student curriculum and materials)	2014-2015	Report on workshop evaluations	Education Technologist
Offer all students and staff cyber ethics copyright, Fair Use, and FIRPA training. (Available on the District's Risk Management training site and approved student curriculum and materials)	2015-2016	Report on workshop evaluations	Education Technologist
Distribute appropriate and ethical use of information technology materials to all students	2015-2016	Report on delivery	Education Technologist
Mandate acceptance of the Acceptable Use Policy for all	2014-2017	Report	
Update web resources for ethical use, copyright and Fair Use	2012-2016	Report	

Objective: By June 2018

3.f.2 100% of students will receive training on the appropriate and ethical use of information technology as measured by teacher and principal reporting to the Education Technologist.

Benchmarks:

3.f.1.a By June 2015, 100% of students will receive basic instruction on the appropriate and ethical use of information technology.

3.f.1.b By June 2016, 100% of students will receive advanced training on the appropriate and ethical use of information technology

3.f.1.c By June 2017, 100% of current students will receive more training on the appropriate and ethical use of information technology

3.f.1.d By June 2018, 100% of current students will receive more training on the appropriate and ethical use of information technology

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Offer all students cyber ethics, copyright, Fair Use instruction	2014-2016	Principal collects data	Principal
Offer all students cyber ethics, copyright, Fair Use instruction	2015-2016	Principal Observations	Principal
Distribute appropriate and ethical use of information technology materials to all students	2015-2016	Report on delivery	Education Technologist
Mandate acceptance of the Acceptable Use Policy for all	2014-2017	Report	
Update web resources for ethical use, copyright and Fair Use	2012-2016	Report	

3g. Goals and Plan for Internet Safety

List of goals and an implementation plan that describe how the district will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid online predators

Annually, the Oakland Unified School District applies for E-Rate funding to support connectivity of communications using telecommunications services and the Internet. Applicants must enforce a policy of Internet safety and certify compliance with the purpose of the Children's Internet Protection Act (CIPA) to be eligible for discounts. E-Rate CIPA requirements² include:

Technology Protection Measure - a specific technology that blocks or filters Internet access, along with a policy for monitoring the online activities of minors.

Internet Safety Policy – that addresses:

Access by minors to inappropriate matter on the Internet and World Wide Web

The safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications

Unauthorized access including "hacking" and other unlawful activities by minors online

Unauthorized disclosure, use, and dissemination of personal information regarding minors

Measures designed to restrict minors' access to materials harmful to minors

Public Notice and Hearing - at least one public hearing to address a proposed technology protection measure and Internet safety policy.

The FCC has recently decided how to implement the act in its CIPA requirements. CIPA compliance for schools has now been changed to include that education of online behavior be taught. The new rule is as follows:

For all schools applying for Internet Access, Internal Connections or Basic Maintenance, the "Internet safety policy must provide for the education of minors about appropriate online behavior, including interacting with other individuals on social networking websites and in chat rooms and cyber bullying awareness and response." It continues to be Congress's intent that local authorities have the ultimate role in deciding what is and is not appropriate for their communities, as well as what this education should look like. Therefore, this rule speaks to the fact that there must be a provision for education of online behavior in your Internet Safety Policy. It does not mandate how you choose to implement that education.

All students and teachers will receive annual training in Internet safety. Currently, AB 307/CIPA compliance calls for annual instruction for all students and teachers, so instruction for all would take place in year 1 and continue through years 2-4.

² <http://www.universalservice.org/sl/applicants/step10/cipa.aspx>

Goal 3g.1: At all times, all students and staff will have safe access to resources on the Internet that they need for instructional purposes.

OUSD has installed tools that block and filter Internet access to websites and applications that are inappropriate for students. OUSD has provided a mechanism that staff can use to gain access to any Internet resource that staff feels is appropriate for classroom use.

Objective: By June 2018

3.g.1 100% of teachers will receive training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators and measured by Professional Development attendance by the Education Technologist.

Benchmarks:

3.g.1.a By June 2015, 100% of teachers will receive basic training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators

3.g.1.b By June 2016, 100% of teachers will receive training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators

3.g.1.c By June 2017, 100% of teachers will receive advanced training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators

3.g.1.d By June 2018, 100% of teachers will receive advanced training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Offer Internet Safety training to all staff and students	August 2014 – June 2018	Report participation form online records	Education Technologist
Train teachers on classroom lessons about Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoiding online predators using District approved materials	July 2014– June 2018	Survey staff after presentation	Education Technologist
Review with staff the Acceptable Use Policy	July 2014 – June 2018	Report compliance	IT Officer

Goal 3g.2: At all times, all students will have safe access to Internet sites they need for instruction and learning

Objective: By June 2018

3.g.2 100% of students will receive training on Internet safety, including cyber bullying, how to protect online privacy, and avoid online predators. Certification of completion will be completed by each teacher, reported to the principal, and verified by the IT Officer.

Benchmarks:

3.g.2.a By June 2015, 100% of students will receive training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators

3.g.2.b By June 2016, 100% of students will receive training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators

3.d.2.c By June 2017, 100% of students will receive training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators

3.d.2.d By June 2018, 100% of students will receive training on Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoid online predators

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Review with students the Acceptable Use Policy	September 2014 – June 2018	Report completion of reviews to Principals	Teacher / Principal
Conduct classroom lessons about Internet safety, including cyber bullying, social networking, chat rooms, how to protect online privacy, and avoiding online predators using District approved materials	September 2014 – June 2018	Survey students after presentations	Teacher / Principal
Principals visit classrooms and monitor usage to monitor compliance	July 2014 – June 2018	Monthly reports	Principals
Certification of completion will be completed by each teacher, reported to the principal, and verified by the IT Officer	June 2015 – June 2018	Review certifications	IT Officer

3h. Goals to Ensure Equitable Technology Access for All Students

Description of or goals about the district policy or practices that ensure equitable technology access for all students

The Oakland Unified School District is committed to developing and implementing policies and practices to ensure equitable access to appropriate technology tools and resources for all OUSD students. We believe that the District should provide equitable, supportable, and standardized technology to all schools. With this baseline, school can supplement and customize for the particular needs of their students.

Our implementation plan includes the following steps, strategies, and activities:

- Annual reviews and dissemination of the baseline technology and recommended electronic learning resources
- Annual needs assessments and assistance to sites to identify gaps in equitable access to technology that can be addressed in their site planning process
- Provide equitable access to technology guidelines and models to school sites
- Actively seek supplementary funding resources

In Winter 2014 the District deployed nearly 10,000 Dell Chromebooks across every school to initiate the model of an equitable, supportable, and standardized technology for all schools. Along with the Chromebooks, schools were giving carts and wireless access points to ensure that students had access anywhere the technology was used.

To further this plan, the District plans to upgrade all schools network access to a minimum of 1 Gigabit per second (Gb/sec.) and add wireless access points to all classrooms by summer 2015.

Oakland Unified School District uses Aeries as its student information system (SIS. The District analyzes various testing data (benchmark tests, Scholastic Reading Inventory (SRI), CST, CAHSEE, SAT, PSAT, and SBAC starting in 2015) using EDUSOFT - the Online Reporting and Assessment System. Student/parent survey data, classroom observations, exhibitions, and major student assignments are tracked and analyzed in other tools. From Aeries, student data is uploaded to CALPADS where it is reported to the State.

Teachers, in the normal course of their professional duties, have the responsibility to keep records as up-to-date as possible so that stakeholders can track how students are performing. The data in the SIS and the online assessment and reporting system are available in real time, easily facilitating reflection on student strengths and weaknesses. Teachers regularly review EDUSOFT and SRI formative data (as well as SBAC data and course grades) so that they can understand how students in their individual classes perform in comparison to other students with different learning styles.

The Oakland Unified School District is committed to helping *all* students attain and maintain a proficient level or above in Math and English and to be college and career ready. Teachers identify specific areas and gaps among target student populations. In addition, the District also supports standards-based assessment conversations with the principal, lead teachers, and faculty through facilitating frequent professional development workshops centered on this issue.

Faculty uses all data to evaluate areas of need and to develop specific plans of action. For example, in June of each school year, all District grade levels and academic departments analyze all of the comprehensive data catalogued throughout the school year. To ensure that The diverse community is represented, “case studies” of students are established by tracking the performance of an English Language Learner (ELL), a Special Education student, a low-performing student, and a high-achieving student, and African American and Latino students.

Plan for Students Who Are Academically Low Achieving

Despite growth on CST and API measures, student achievement over the past 10 years, the District is not on track to meet 21st Century and district Graduate Profile goals, particularly for English Language Learner and African American students,, and Students with Disabilities.

Within the OUSD CCSS-aligned Core Curriculum Guide, the tasks, activities, and differentiation strategies that support ELLs (English Language Learners), SwD (Students with Disabilities), and African American students to develop the skills necessary to successfully meet the expected outcomes and perform the summative task need to be specifically outlined in each core curriculum unit. The value-add of this guide is to connect and adapt these instructional materials to the specific needs of Oakland students.

The foundation to address the needs of Low- and High Achieving students, students with disabilities, and ELLs will be the further development of tools and resources to accompany the OUSD CCSS-aligned Core Curriculum Guide. These core curriculum documents already include specific differentiation guidance and supports for special populations in each model unit. Further development and revisions were completed throughout the 2013-2014 school year.

OUSD observes a system-wide focus on Quality Academic Discussions. Professional learning, provided centrally to augment the work at sites, will focus on academic discussion, as will the monthly continuous improvement inquiry work to understand CCSS implementation. System-wide coherence will be built by engaging principals, teacher-leaders, and teachers -- and then a full cadre of central office leaders in dialogue making sense of implementation data -- guided together by a common frame and focus on academic discourse. Academic Discussions are purposeful, sustained conversations about content. They are productive by requiring students to work together to co-construct knowledge and negotiate meaning in order to attain high levels of thinking and deep understanding about a topic, and are characterized by high student engagement and participation, as students discuss relevant topics that allow for multiple and diverse perspectives.

Monthly sessions with district curriculum/instruction/assessment leaders and executive officers (principal supervisors), facilitated with support from SERP partners -- will focus evidence and data analysis on the impact of the instructional shifts (i.e., academic discussion) on specific populations. Quality academic discussions are essential for all students to develop content understanding and academic language. In order to ensure that all students have equitable opportunities to engage in and benefit from academic discussions, teachers must be aware of and attentive to the needs of their diverse language learners.

To support secondary students who are reading below grade level by two or more years, OUSD created the Secondary Literacy Collaborative, which provides intensive literacy support to students in middle and high schools. The mission of this collaborative is to accelerate reading proficiency in order to access grade level Common Core standards and to address the needs of below grade level readers in secondary schools in order to provide acceleration for College and Career Readiness. Fourteen full-time centrally funded Secondary Literacy Specialists are placed at the high priority school sites. Each Site-Based Literacy Specialist teaches four-periods of reading intervention and develops the site capacity of content area teachers via classroom observations, coaching, and leading professional development.

In addition, all schools focus on improving the reading skills of all students including high performers. All schools administer the Scholastic Reading Inventory (SRI) to students in grades 2-12. Analysis of SRI data evidenced that many students were not gaining a year in their reading level for a year of instruction. This impacted high performers as well. Schools must focus on improving literacy levels and include a multiple strategies to improve competencies and gains in reading.

During the Spring Instructional Rounds, led by Cross Department Central Office Team facilitators, leaders will pick at least one special education classroom to observe the use of CCSS alignment instruction. This is monitoring is designed to promote accountability among teachers and administrators. When school sites are scoring their SBAC-aligned assessment modules, all special education teachers will be involved in the scoring and analysis process. Finally, teacher leaders will be accountable to present their curriculum and instructional successes with regard to implementation of CCSS with SwD during teacher leader professional development sessions.

Observational data collected by principals, central office staff, and Programs for Exceptional Children staff from instructional rounds and professional development sessions will be collected to monitor that implementation is completed to quality standards. Impact will be measured via SBAC aligned assessment scores from students with disabilities and will be analyzed to inform instruction.

The transition to the CCSS and the SBAC assessment is providing a unique opportunity in OUSD to explore redesign thinking of teaching and learning in the form of ‘Blended Learning’ as a means to differentiate instruction and provide an exemplary 21st century learning experience that is equitable to all students. A cross-content, cross-departmental and foundation collaboration, the Connected Learning Team, is supporting formal educational pilots in which students learn through online delivery of content and instruction with some element of student control over time, place, path and/or pace. Face-to-face classroom methods are combined with computer-mediated activities. These pilots present three major benefits: the opportunity for data collection, customization of instruction and assessment and optimizing the personalized learning experience for all students.

Plan for Students Who Are Academically High Achieving

The Oakland Unified School District has high expectations for all students. Because the curriculum is standards based, students push to meet and exceed the standard. Traditionally, high-achieving students might find themselves greatly challenged by having to demonstrate and apply knowledge that they are accustomed to simply regurgitating. Students will have opportunities to engage in many different kinds of learning activities, calling on them to use a variety of skills and abilities. Learning venues open to students include classes at the school site, local college or community college classes, online coursework, and community service and internships. In line with the practice of differentiated instruction, high achieving students will also be encouraged to take on projects and academic work that is personalized to their achievement level.

Plan for English Learners

English language learners (ELLs), in particular, need instruction that actively engages them in discussion. Typically they have had limited opportunities to practice the academic language necessary to be successful in college and careers. One study found that *English learners spent only 4 percent of the school day engaged in school talk and 2 percent of the school day discussing focal content of the lesson* (Zwiers, 2011). Further, students on the margins of classroom discourse have a greater need of a teacher skilled in creating a safe learning environment that fosters opportunities for academic risk-taking. The demands of sound, day-to-day formative assessment practice requires that students are able to express their ideas and thinking out loud and in writing.

For these reasons, we must ensure our English Language Learners and African American students have frequent opportunities to engage in discussion of content, while also providing explicit instruction of the skills, language and behaviors they need to be successful participants. A focus on academic discussion points our system in this direction, and will uncover the needs for deeper SEL (Social Emotional Learning) integration.

Also in the 2013 – 2014 school year, OUSD transitioned ELLs to English Language Development Standards. The district plans to bundle the ELD Standards in centrally supported curriculum development / model lessons and units. It will hold awareness engagements of ELD Standards for Leadership, Curriculum and Instruction staff and practitioners. Focus will be on the collaborative strand of ELD standards in the academic discussion work.

The principle professional learning activity for all teachers to help meet the needs of ELLs is to collect artifacts of exemplary teacher instruction and develop curriculum that exemplify high-challenge, high-support for ELLs, including video cases. An online professional library of high impact practices for ELLs and instructional tools will be available for all administrators, teachers, and staff. Professional learning will be based on academic discussion and a digital toolkit centered on this video library.

Plan for Special Education Students

To address the needs of Students with Disabilities (SwD), a partnership was formed between Programs for Exceptional Children (PEC) and Leadership, Curriculum and Instruction (LCI) to revise current OUSD Core Curriculum units to include specific differentiation strategies for Students with Learning Disabilities. This partnership convenes monthly and will run in the 2013-2014 and 2014-2015 school years. A teacher leader cadre from PEC will be established to work with the teacher leader cadre of LCI to revise current instructional units. Common Core units of instruction need to specifically address the needs of SwD. The expertise of PEC specialists is required to outline the specific modifications needed for SwD. The goal of this partnership is for PEC teachers to fully implement the CCSS with differentiation to meet the needs of SwD and for general education teachers to understand how to modify Common Core curriculum to meet the needs of Special Education students.

OUSD values students with disabilities and their ability to participate in the Common Core curriculum, SBAC assessments, and general education activities. In order to address these needs, OUSD has designed, beginning November of 2013 and continuing on an ongoing basis, the Special Education Teacher Leader Initiative. This initiative is a plan to effectively transition administrators, teachers/staff, students, and parents of students with disabilities to Common Core Standards and the SBAC.

Special education teacher leaders (SETL) will be identified via principal nomination. These SETL will attend Professional Learning the third Tuesday of every month. During these professional development sessions, SETL will learn models to then facilitate, via the teacher leader model, site-based professional development focused on:

Education for site administrators concerning students with disabilities, CCSS, and SBAC through membership on the school site instructional leadership team

How to prepare and deliver CCSS instructional programs/units for students with disabilities for general education and special education teachers

How to create and provide at least three practice test opportunities for students with disabilities to take SBAC aligned assessment modules before the official SBAC is administered

How to develop CCSS aligned IEPs

How to create and implement school based forums to educate students and parents around transition to SBAC implementation

The goal of the Special Education Teacher Leader Initiative is to build capacity and shared accountability of all teachers on implementation of CCSS and SBAC for students with disabilities. The ultimate objective is that each special educator is able to fully implement CCSS in their classrooms with students being successful on SBAC assessments; and that each general educator is able to understand how to modify CCSS curriculum to meet the needs of special education students.

A baseline technology software for either Window-based or Apple computers includes Microsoft Office Suite software which consists of Word, Excel and PowerPoint or and Google Apps plus a

web browser, Adobe Acrobat Reader and other free Internet and Web 2.0 tools. The baseline software is installed on all new computers purchased by OUSD school sites.

District provided electronic resources currently include Encyclopedia Britannica, Teen Health and Wellness and Destiny on-line library management system.

Each school site also has the ability to purchase District recommended software that meets the instructional needs of their student population.

Enabling technologies might include Intranet and Instructional Portals, Voice Over IP (VOIP), and Web 2.0 applications.

Assistive technology tools are individually determined according to the specific IEP for each child.

Personalized Learning to Meet the Needs of All Students

Personalizing learning is a goal and practice of all good teachers and has been since the beginning of time. The goal is not new. What is new are the tools available to help teachers do this successfully, brilliantly, and with ease. The District envisions a system of personalized learning and blended instruction where students are engaged and inspired by both their teachers and their own ability to direct, pace, and advance their academic growth. The District hopes to design a system where teachers can use available real-time data, and 1:1 environments to differentiate the needs of each student, boosting those ready to tackle more challenging work, while also being able to help learners whose academic growth must be accelerated.

Oakland has a strong foundation to build upon to further vision and link learning in school, home and community, including: the district's Community Schools, Thriving Students strategic plan; the Quality Review Process which creates an evaluation and feedback mechanism for school improvement; and the transition to Common Core State Standards and online assessments.

The Blended Learning pilots at specific schools, Korematsu, Encompass Academy, Madison Middle, Elmhurst Community Prep, Bret Harte Middle, Brewer Middle, and ASCEND, serve as rich early models of early adopter designs and teaching practices in our own city. "Our blended pilot principals, teachers and students are pioneering this work in Oakland, learning how best to use new tools to accelerate student learning. We have already learned so much about what energizes students and teachers to be successful in this work," says Rogers' Director of Blended Learning, Greg Klein.

While we cannot yet say exactly what Oakland's Next Generation ("Next Gen") schools will look like, we do know that Next Gen schools dramatically personalize the education for individual students, and they practice an institutional growth mindset of striving for constant improvement. For part of their day, students may use adaptive online content programs to receive individualized instruction and feedback that is just right for them. In Next Gen schools, teachers can spend more of their time working with smaller groups of students and are more able to tailor their lessons accordingly. Technology is frequently used as an enabling tool to help teachers connect with their colleagues to build their own personalized professional development plans and

for students to access information and collaborate with peers outside of their own geographical worlds.

Leah Jensen, Instructional Technologist at Oakland Unified states “Blended Learning in Oakland will be in support of our district goal: to graduate students college, career and community ready. As a Full Service Community District, we strive to serve the whole child, with a focus on eliminating inequity. In Oakland, teaching 21st Century Skills means Educating for Democracy in the Digital Age. By providing learning activities that are embedded in academics, a learner’s interest, civic action and participatory politics, our students are able to identify, research and disrupt patterns of inequity in their own communities.”

Goal 3h.1: Chromebooks and mobile technology will be used to provide an equitable, supportable, and standardized technology platform to personalize learning for all students.

Objective: By June 2018

3.h.1 100% of students will use Chromebooks and mobile technology to meet their individual needs as measured by usage reports.

Benchmarks:

3.h.1.a By June 2015, 50% of students will use Chromebooks and mobile technology to meet their individual needs.

3.h.1.b By June 2016, 75% of students will use Chromebooks and mobile technology to meet their individual needs.

3.h.1.c By June 2017, 90% of students will use Chromebooks and mobile technology to meet their individual needs.

3.h.1.d By June 2018, 100% of students will use Chromebooks and mobile technology to meet their individual needs.

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Implement 10,000 Chromebooks across all schools	July 2014 – June 2015	Report usage	IT Officer
Train teachers in using Chromebooks and mobile technology for personalization	July 2015 – June 2016	Report training schedule	Education Technologist
Teach students to use Google Apps as a foundation platform learning	September 2015- June 2018	Measure student usage	Education Technologist
Teach students to use a variety of online applications for personalized learning	September 2015- June 2018	Measure student usage	Education Technologist

Goal 3h.2: All students have Internet access and a computing device at home and at school as needed

Objective: By June 2018

3.h.1 100% of students have Internet access and a computing device at home and at school as needed as measured by accurate school and home accounting and reporting.

Benchmarks:

3.h.1.a By June 2015, 90% of students have Internet access and a computing device at home and at school as needed.

3.h.1.b By June 2016, 100% students have Internet access and a computing device at home and at school as needed.

3.h.1.c By June 2017, 90% of students grade 3 and above have Internet access and a computing device.

3.h.1.d By June 2018, 100% of students grade 3 and above have Internet access and a computing device.

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Hire Education Pioneer Fellow to lead the effort	July 2014 – December 2014	Create Plan	IT Officer
Implement plan to measure technology and Internet access	January 2015 – March 2015	Report of access	IT Officer
Implement protocols for offering students and parents devices and Internet access for the home	January 2015 – June 2015	Report by Principals	IT Officer
Pilot 1-1 initiatives	July 2015 – June 2017	Report by Principals	IT Officer

3i. Goals and Plan to Use Technology for Record Keeping and Assessments

List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs

The district is committed to improving the way we input, capture, access, analyze, synthesize, evaluate and generally utilize data to support decision-making and improved instruction and learning.

This Data Vision, born of extensive stakeholder engagement, contains six pillars to guide the strategies and priorities of OUSD's new data infrastructure that will be created under this initiative.

The pillars of the initiative include:

- 1: Data Access is an Issue of Equity
- 2: Users Need to Be in Control of Their Data Exploration
- 3: Central Needs to Do More with Less in Its Data Reporting
- 4: Data Sharing Across & Within Schools and Central Is the Default
- 5: Channels for Data Access are Systematic
- 6: Central Office Cannot Provide All Data, but Should Provide Major Data

The Need for Data

District and school leaders, teachers, students, and all stakeholders need to use data in real-time decision making, they require data systems and tools that are dynamic and accessible enough to allow users themselves to explore up-to-date information related to their work, teaching, and learning.

Tools Needed

Learning Management / Student Information / Assessment System providing:

- Online SBAC-aligned assessments
- Online personalized teacher and student driven instruction
- Record keeping
- Reporting to all including student, stakeholders, state, and federal

Data Warehouse providing:

- Live Dashboards with Drill Down
- Ad Hoc Reporting
- Balanced Scorecards
- Web-based Information Portals

Human Capital Data Management System providing:

- Live Dashboards with Drill Down
- Ad Hoc Reporting
- Employee tracking

Finance System providing:

- Live Dashboards with Drill Down
- Ad Hoc Reporting
- Budgeting
- Accounting
- Tools as needed

Goal 3.i.1: Implement a Data Warehouse to enable staff to, access, analyze, synthesize, evaluate and generally utilize data to support decision-making and improved instruction and learning.

Objective: By June 2018

3.i.1 100% of staff will access, analyze, synthesize, evaluate and generally utilize data to support decision-making and improved instruction and learning as measured by the use of the data warehouse to improve learning

Benchmarks:

3.i.1.a By June 2015, the District will have complete a Data Governance and Climate Campaign to build a data culture

3.i.1.b By June 2016, 100% of administrators will receive training to use the Data Warehouse

3.i.1.c By June 2017, 100% of teachers will receive training to use the Data Warehouse

3.i.1.d By June 2018, 100% of staff will use the Data Warehouse for decision-making and improved instruction and learning

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Build and implement data governance and culture	Summer 2014 - 2015	Survey staff	Assistant Superintendent QAA
Purchase and set up data warehouse	September 2014 – June 2015	Report	Assistant Superintendent QAA
Deliver reports via data warehouse	Summer 2015	Survey stakeholders	Assistant Superintendent QAA
Launch Data warehouse	July 2015 – June 2017	Survey participants	Assistant Superintendent QAA

Goal 3i.2: Personalize learning with active use of data

Objective: By June 2018, 100% of teachers are using data to increase student achievement as measured by staff survey related to data and student achievement and analysis of student achievement.

3.i.2 1 Benchmarks:

3.i.2.a By June 2015, 50% of teachers are using data to increase student achievement.

3.i.2.b By June 2016, 75% of teachers are using data to increase student achievement.

3.i.2.c By June 2017, 90% of teachers are using data to increase student achievement.

3.i.2.d By June 2018, 100% of teachers are using data to increase student achievement.

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Study EDUSOFT replacement	Summer 2014	Schedule review	Director of QAA
Evaluate new Data tools	July 2015 – June 2017	Review panel	Director of QAA
Implement new Learning Management and Student Information System	July 2015 – June 2017	Survey staff	IT Officer
Implement online testing for Common Core – SBAC (CAASP)	January 2015 – June 2017	Principals report	Principals

3j. Goals and Plans to Use Technology for Two-way Communication between Home and School

List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.

District staff presents at a variety of Town Hall meetings at school sites and community events on a quarterly basis. Parent Guides for grade-level CCSS and presentations about district strategy for full implementation of CCSS will be distributed using a CCSS parent toolkit. Each school hosts two sessions yearly on the CCSS for parent and community members. The District developed a team of College and Career Parent Ambassadors to not only engage site based parents in understanding the CCSS but in ways in which to support their children achievement to standards. District staff will used professional learning venues for teachers, teacher leaders and principals to continue to build awareness about CCSS and gather feedback about successes and challenges with implementation.

The African American (AA), Latino, and Asian/Pacific Islander Family Summits engage students, parents, classified staff, teachers, site security officers (SSO's), and administration around identifying needs of a school in service of students and families. The AA CST STAR Perfect Score Celebration in October provides an opportunity to celebrate the beauty, brilliance and accomplishments of AA students. This event will evolve to recognize the SRI Lexile Scores; other results of CCSS aligned assessment for AA students, and overall awareness of CCSS. The yearly Latino Honor Roll celebrates the academic achievements of Latino/Hispanic students. All of these district-wide venues will bring CCSS strategies closer to families and communities.

The Early Childhood Education (ECE) department partners with schools and district staff to build awareness of CCSS-aligned curriculum, instructional practices and SBAC-aligned assessment to families of EL and African American parents and families. Primary emphasis is given to promotion of literacy in the home and strategies to successfully navigating through the OUSD K-12 system including Pre-K to Transitional K/K transition. All ECE parents and families will have the opportunity to complete the Desired Results Parent Survey to provide feedback on ECE program quality. Data from the Desired Results Parent Survey will be used to make program improvements. ECE recognizes parents as key partners in raising student achievement and seeks to actively engage them in the process during the early years to lay the foundation for their child's academic success through college and career.

The District strongly encourages parents and members of the community to participate in and share responsibility for the educational process and educational results of the District. As members of the School Site Council, parents become active participants in developing school policies and leading efforts to engage the support of the community, making recommendations about issues related to the school, and reviewing parental and community concerns.

The District's phone and messaging system allows direct telephone access to teachers and administration.

Currently, each school has a website that provides an overview of the school, lists current events, and showcases student work and achievements. Each teacher also has his/her own individual section of the website to list curriculum, assignments, projects, and showcase student work.

Another area of improvement is the District's use of websites. During 2014-2015, the District plans to improve teacher websites by integrating it with social media.

Many schools in the District have email groups that keep parents and students informed about what is happening at school. PTA and PTO groups at the schools support these email groups. It is up to parents to join these email groups.

Even though email is a constant part of administrators and teachers daily work, the District does have other easy and consistent ways to communicate electronically with students, parents and guardians. The District initiated use of voice and text messaging through an automatic dialing program. There are further plans to improve this communication.

The District plans to study the effectiveness of using smartphones as a vehicle to reach more parents. The District will continuously evaluate the effectiveness of communication with parents and how technology can improve that, and will adjust the technology plan accordingly in the years to come.

Goal 3j.1: All Schools, sites, and departments have a web presence to facilitate two-way communication between home and school

Objective: By June 2018

3.j.1. 100% of school sites, staff, and relevant departments will have websites that contain pertinent information for teachers, administrators, parents and students. To facilitate the two-way flow of information between school and home, school websites may include teacher-maintained interactive websites (e.g., blogs, wikis) as measured by a cataloging of all sites.

Benchmarks:

3.j.1.a By June 2015, 85% of teachers, staff, and departments have current websites

3.j.1.b By June 2016, 90% of teachers, staff, and departments have current websites

3.j.1.c By June 2017, 95% teachers, staff, and departments have current websites

3.j.1.d By June 2018, 100% teachers, staff, and departments have current websites

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Train staff on website options School Wires other	Summer 2014, 2015, 2016	Survey participants	Communications Department
Offer staff workshops in website development and blogging	July 2014 – June 2016	Survey participants	Communications Department
Monitor website development Monitor website usage	July 2014 – June 2016	Post website dashboard at each site of active websites	Communications Department
Continue training via online screen casts	July 2014 – June 2016	Survey participants	Communications Department

Goal 3j.2: All schools will use District email for teacher, parent, and student communication

Objective: By June 2018

3.j.2. 100% of school staff communicates with parents and students via District email as measured by usage reports

Benchmarks:

3.j.2.a By June 2015, 80% of school staff communicates with parents and students via District email

3.j.2.b By June 2016, 90% of school staff communicates with parents and students via District email

3.j.2.c By June 2017, 95% of school staff communicates with parents and students via District email

3.j.2.d By June 2018, 100% of school staff communicates with parents and students via District email

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Offer Train the Trainer workshops on effective use of email in schools, including handling spam	Summer 2014, 2015, 2016	Survey participants	IT Officer
Offer staff workshops on effective use of email in schools, including handling spam	July 2014 – June 2016	Survey participants	Principals
Monitor email usage	July 2014 – June 2016	Report email usage	IT Officer
Continue training via online screen casts	July 2014 – June 2016	Survey participants	Technology staff

Goal 3j.3: All schools will experiment with new communication models to improve two-way communication between home and schools

The District is evaluating further improving parent-teacher-student communication. For example, a new parent portal, Google Apps, or email can be used for students to use for schoolwork. We are looking at ways to use video, mobile applications, and texting to reach more parent and guardians.

Objective: By June 2018

3.j.3. 100% of school staff communicates in multiple ways to improve two-way communication between home and school as measured staff surveys and engagement reports.

Benchmarks:

3.j.3.a By June 2015, 80% of school staff communicates in multiple ways to improve two-way communication between home and school

3.j.3.b By June 2016, 95% of school staff communicates in multiple ways to improve two-way communication between home and school

3.j.3.c By June 2017, 100% of school staff communicates in multiple ways to improve two-way communication between home and school

3.j.3.d By June 2018, 100% of school staff communicates in multiple ways to improve two-way communication between home and school

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Train staff on Schoolwires for web sites, blogging / discussion boards	Summer 2014, 2015, 2016	Survey participants	Communications Department
Offer staff workshops on Simple Message System and social media	July 2014 – June 2016	Survey participants	Communications Department
Implement video messaging & reporting	September 2015	Survey participants	Communications Department
Expand social media presence	July 2016-2018	Analyze Engagement	Communications Department

3k. Monitoring Process for Curriculum

Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities

The overarching vision of the district's Strategic Plan is to improve the instructional core by building the capacity of the students, families, and staff to work in partnership with one another to create the conditions for learning. This is not just an outcome, but a means of achieving that outcome. Building a learning organization dedicated to getting great at getting better is the foundational strategy towards ensuring quality. A central theme throughout the District's implementation plan of the CORE waiver's School Quality Improvement System is a commitment to building the social capital of all key stakeholders so that schools and communities are meaningfully engaged, and actively learning together about how to get it done.

The School Quality Improvement Index includes not only the academic domain, but also social and emotional factors and school culture and climate factors. Rather than academic factors constituting the entire accountability system and measure of a school's quality, the School Quality Improvement System is based upon an index that gives 40% of the weight to non-academic measures that are essential for student learning and well-being, and ultimately for graduating college, career, and community-ready. Our OUSD Graduate Profile (See Appendix A) describes a graduate who is not only academically proficient, but who is civically engaged, culturally disciplined, an essential communicator, socially, emotionally and physically thriving, and who has a post-high school plan in hand. The School Quality Improvement Index also provides the basis for a system of differentiated supports for schools – the School Quality Improvement System.

"At its heart, CORE's goal is to build a new system of accountability – the School Quality Improvement System – rooted in a moral imperative to educate all children and engineered on a foundation of transparent data sharing and mutual accountability." To this end, the District is engaging a third party data partner, the John W. Gardner Center for Youth and Their Communities at Stanford University, to develop data aggregation analysis, and a reporting plan. OUSD has allocated staff time from its Quality, Accountability & Analytics department for engagement with data aggregation.

Specific measurements of student progress from both standardized tests and class-specific assessments will be made and reported on a regular basis. The District will import achievement and test results into the Data Warehouse. The District will use the following specific measurements. The timeframe listed in parentheses next to the measurement indicates the minimum frequency of formal data analysis for that measurement.

- Student attendance (quarterly)
- Student grades: A – C-, No Credit (NC) system (quarterly)
- Graduation rate (annually)
- Drop out rate (annually)
- Pre- and post- assessments of annual class performance on subject-specific measures of learning (e.g., scored essays, mathematics assessments) (tri-annually)
- SBAC scores (annually)
- Writing samples (bi-annually)

- API Ranking (annually)
- AYP Targets (annually)
- California High School Exit Exam scores (annually)
- Overall satisfaction among students and parents (as determined by survey and return rate each year) (annually)
- CELDT (annually)
- CAPA as applicable and as determined by IEP team (annually)
- Social Emotional Learning (SEL) and culture-climate indicator
- Persistence, absenteeism, and suspension/expulsion

Unique to the District is emphasis on SEL and Persistence, absenteeism, and suspension/expulsion.

OUSD and all CORE districts strongly believe that social-emotional and school culture and climate factors play important roles in preparing all students to be college- and career-ready. Indicators in both of these domains must be included in a new system of accountability to drive overall student achievement and school improvement.

OUSD is a partner district with the Collaborative for Academic, Social and Emotional Learning (CASEL), and we believe that students who are strong in what we have defined as the OUSD Pre-K-12 Social and Emotional Learning Anchor Standards -- Self-Awareness, Self-Management, Social Awareness, Relationship Skills, and Responsible Decision-Making – will tend to do better in school and in life than those who are not strong in these areas.

These competencies need to be taught and developed in our students and modeled by adults in classrooms and schools and throughout our system. Social and emotional learning is not separate from academic learning, but in fact is critical to the effectiveness of instructional practices needed to teach the Common Core State Standards. Our new Middle School Action Plan explicitly links academic proficiency with healthy peer interactions, regular and timely attendance, perseverance, technological literacy, strong habits for success in high school, social, emotional and physical thriving, and a plan for high school, college, and career.

The SEL anchor standards and the associated learning standards can be observed and measured, including through our College and Career plan that all 9th graders (See Appendix G) will create in Fall 2013, and that all 6th and 3rd graders will develop in future years, and the Individual Student Learning Plan that will support success in middle school. To create the plan itself requires social and emotional competencies. To give just a few examples: Self-Awareness shows up in a student's articulation of personal aspirations, talents, and interests, choice of Linked Learning Pathway matched to interests; Social Awareness can be seen in the student's work-based learning experiences, participation in organizations or teams; Responsible Decision-Making can be evidenced by GPAs, course-taking plans, A-G completion; Self-Management can be seen in personal statements for college, work-based learning blog entries; Relationship Skills can be seen in internships, relationships with mentors.

All of these are reflected in the College and Career Plan, and help to raise awareness about the link between Social and Emotional Standards and student success in achieving the OUSD graduate profile.

We also plan to collect data from Instructional Rounds that will take place at every OUSD school in OUSD, focusing on academic discussion. We recognize that Social and Emotional Learning standards must be taught in order for students to productively engage in academic discussions that build on and challenge each other's ideas, take risks, solve problems together, and work with students who are not like them. We will document and quantify student engagement (and who is engaged) in academic discussions, identify the social and emotional learning that is necessary for quality academic discussions in the classroom, and will codify the data at the school level.

We will seek research support from our Strategic Educational Research Partnership (SERP) partners.

We have built in the five OUSD Anchor SEL Standards into our Advisory curriculum as part of our College and Career Readiness Student Support Guidelines (See Appendix I) to be taken up this year in our middle schools and high schools.

Collecting and using data, at central and school levels, on absenteeism and suspension/ expulsion are high priorities in OUSD. We are developing ways to collect persistence data connected to Social and Emotional Learning Standards and college and career planning, in addition to tracking "holding power" of our middle schools, and we plan to implement the CORE middle school persistence indicator by tracking and creating a baseline for middle school students who are still enrolled by 10th grade.

Chronic Absence

National and local research clearly shows that chronic absence – missing 10% or more of the school year for any reason, excused or unexcused – marks a "tipping point" that has a negative impact on student learning and achievement, with both short-term and long-term consequences. Missing too much kindergarten, for example, affects not only kindergarten early literacy, but also predicts third grade and fifth grade reading levels. The same is true for math. The impact of chronic absence is greatest for students living in poverty, so it is of particular concern in Oakland, where more than 70% of students qualify for free or reduced price lunch.

Typically, school systems focus on Average Daily Attendance and truancy (unexcused absences). However, ADA can hide deceptively high rates of chronic absenteeism. Oakland research showed that seven OUSD schools – all with 95% ADA – had chronic absence rates ranging from a low of 5.8% to a high of 17.3%. So a "high" ADA of 95% masked a wide variation of chronic absence. Likewise, focusing on truancy misses those students with excused absences who are missing too much school and whose learning and academic achievement are most likely to suffer. For these reasons, Oakland has collected chronic absence data for the past three years, and generates weekly chronic absence reports for every school, indicating which students have missed 10% of the year-to-date, for any reason. (See Appendix J) These data reports also identify those students who have missed 20% or more of the year-to-date – our definition of severe chronic absence -- as well as those students who are "at risk" of becoming chronically absent. The reports are disaggregated by grade level, ethnicity and gender, English learner status, and special education status in order to monitor and prompt action to improve attendance for the groups of students with the highest chronic absence rates. Student-level chronic absence data

rosters are also generated weekly in Excel for every school in the district, as a tool for intervention. We plan to continue this data reporting work.

Suspensions/Expulsions

Suspension and expulsion, like chronic absenteeism, predict poor academic achievement and dropping out. In our five-year Strategic Plan adopted in June 2011, OUSD recognized the need to reduce suspensions overall and to address disproportionality in school discipline for African American students in particular. In 2010, OUSD launched a ground-breaking Office of African American Male Achievement, with one of its areas of focus on improving student outcomes and reducing disproportionate school discipline by transforming school culture.

Starting in Fall 2012, through the Office of Civil Rights Agreement to Resolve (ATR) disproportionate school discipline for African American students, Oakland entered a five-year agreement to eliminate disproportionality through transformation of school cultures. We formed cross-district working groups to begin implementing the agreement system-wide. Currently, our focus is on 38 schools identified as disproportionate in the ATR, including all middle schools and high schools in OUSD. Nine of these schools are also identified as Priority Schools, with another five ATR schools identified as Focus Schools in the CORE Waiver.

We will continue to collect and report data on out-of-school suspensions for every school in the district. We generate monthly reports on students receiving one or more suspension, disaggregated by ethnicity/gender. We also generate monthly reports on out-of-school suspension incidents, disaggregated by ethnicity and by primary reason for suspension (e.g., Defiance, Fighting, Bullying, etc.).

Persistence

In terms of persistence or “grit” factors, OUSD collects data on cohort graduation and dropout rates, participation in and completion of Linked Learning college and career pathways in high school, and we are looking into accurate ways of determining graduation rates for students who take five or more years to graduate⁷. We also keep track of students staying from 9th to 10th grade, and we plan to look at literacy growth and setting/meeting individual reading goals in relationship to persistence. The more students gain in literacy, the more they tend to stay in school.

OUSD and other CORE districts will use persistence rate to 10th grade as the indicator for middle school persistence rather than enrollment in 9th grade. We will create a longitudinal persistence rate for each middle school, and will use the same baseline year as other CORE districts. Beginning in 2014-15, persistence rate to 10th grade is will constitute 20% of the academic domain for middle schools instead of graduation rate.

Staff will analyze student performance assessment and engagement data to drive decisions on a weekly basis during collaborative time. The schedule is structured to provide teachers with several hours of collaborative time each week. This time will be used to analyze student performance data as well as allow staff to plan integrated projects/curriculum.

Collaborative time spent with performance data will be focused on the analysis of the data in order to accurately measure the performance of student groups as well as individual students at the school. Specifically, these analyses of student performance will be broken down according to individual student, grade, gender, and ethnicity.

Reports will be made both at mid-year and end-of-year. The end-of-year reports will also include demographic analysis.

Monitoring and evaluation for curriculum goals takes several forms depending on the activity. Within the table for each main goal in the preceding sections, we have included a brief description of the process that will be used to monitor whether our curricular goals are being met and whether the curricular activities are being implemented in accordance with our benchmarks and timeline.

Goal	Description	Monitoring Process	When	Responsible Party
1: Improving Teaching and Learning & Technology Skills (Goals 3d and 3e)	Learning and using technology	Monitoring teaching and learning practices	Monthly Annually	Site Principals Instructional Technologist
2: Ethical Use & Internet Safety (Goals 3f and 3g)	Using technology appropriately	Observations, Surveys	Ongoing	Instructional Technologist
3: Special Needs and Assessments (Goal 3h and 3i)	Measuring effective use of technology with all students	Regular review of test data	Ongoing	LCI, PEC
4: Two-Way Communication (Goal 3j)	Improving home – school connection	Surveys, observations, and reporting	Ongoing	Communications Office

4. PROFESSIONAL DEVELOPMENT

The Central Office and LCI play an essential role in structuring and guiding the development of individual schools. One of the most important contributions is instructional support.

The Central Office also provides regular professional development for teachers and school leaders.

The IT Officer has developed relationships with key vendors who provide professional development.

Ongoing communication and training are keys to the success of this technology plan. The IT Officer will institute regular meetings with stakeholders to review the technology plan, monitor progress, and adjust implementation as necessary. These meetings will be part of the ongoing professional development of the staff and stakeholders.

The District believes that professional development ensures that its teachers and staff are utilizing strategies that are research-based to promote student success. Technology professional development is not independent, but is part of the overall professional development strategy at OUSD.

4a. Teachers' and Administrators' Technology Skills and Needs

Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development

Teachers and administrators have good base technology skills, but they could use training in specific applications and methodologies. They all use computers with relative ease and are comfortable with productivity and presentation software. Most are Internet savvy and are at ease with email and web access. Most teachers use their computers for all aspects of their jobs and are expected to utilize technology beyond the parameters of the classroom.

As discussed in 3a and 3b, teachers have extensive access to technology throughout the school day. All teacher-available technology is used daily by nearly 100% of the staff and an extensive set of other hardware is also available.

To date, we have used informal observations and surveys to determine professional development needs for technology.

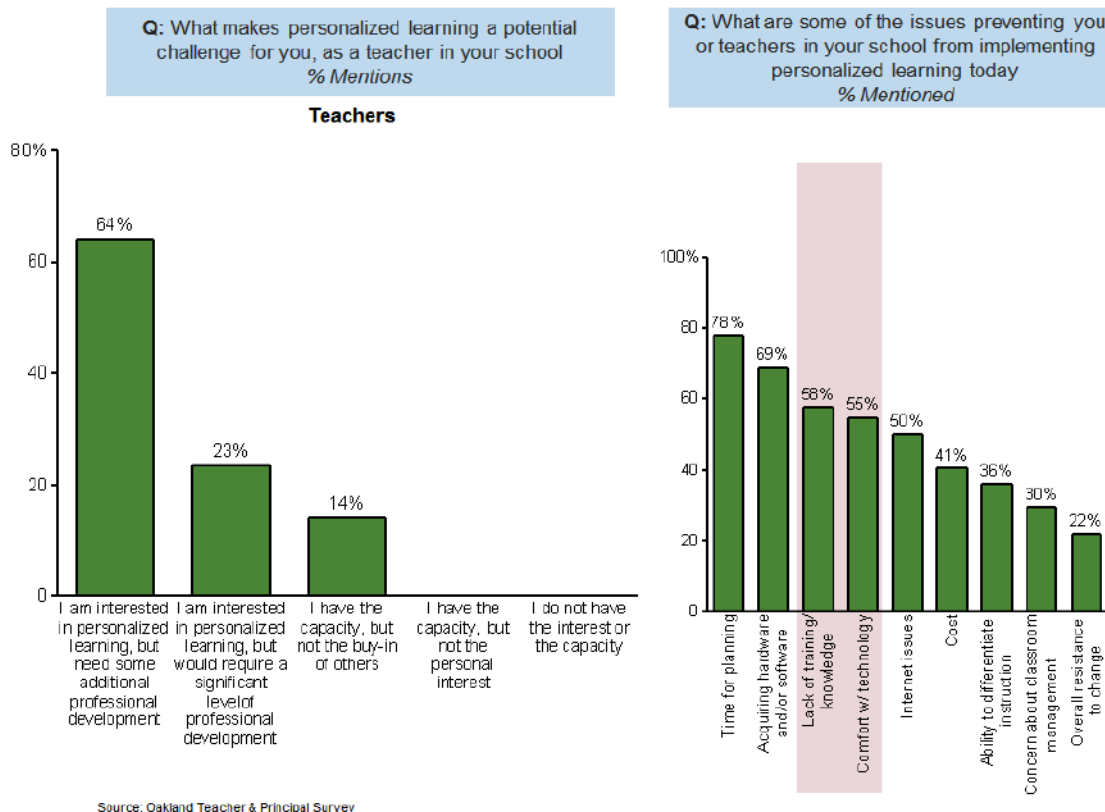
Based on our observations, we are aware of these current needs in technology professional development:

- Internet Safety - all staff need to be trained in our Acceptable Use Policy and methods to increase Internet safety for our students. This will be addressed by the Instructional Technologist and "Cybersafety Team" through whole-group instruction during our summer training in 2014 and be reiterated each summer and school year.
- Use of software and portable devices to enable and enhance 21st Century learning - we will instruct classroom teachers on using portable technology to personalize teaching and learning.

- Enabling of personalized learning – all staff need training on methods of Blended Learning
- Assessment and data tools - all staff need training on these tools.
- Demonstrating proficiency with Technology to improving teaching and learning.

The following results from surveys in Fall 2013 demonstrate need for Professional Development.

Teachers Desire Additional Professional Development with technology so that they can increase the personalization of students' learning



4b. Goals and Plan for Professional Development

List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (Sections 3d - 3j) of the plan

The Oakland Unified School District's teachers and administrators will have numerous and various professional development opportunities:

- Some offerings are required
- Some offerings are optional (e.g., vendor trainings, self-paced online courses, site-based group trainings, summer offerings, conferences)
- Training delivery will be via Teachers, LCI staff, Communication Department, Technology Services, outside resources, other internal resources, self-paced online study, and meeting with others further along in implementing technology, thus providing varied format for diverse learning styles.

Goal 4b.1: Each teacher and administrator uses technology to enhance his/her success, as demonstrated by the self-assessment survey.

Objective: By June 2018

4.b.1 100% of teachers and administrators will reach an intermediate level of proficiency with software pertinent to their job descriptions as reported in self assessments analyzed by the Education Technologist.

Benchmarks:

4.b.1.a June 2015, 50% of teachers and administrators will reach an intermediate level of proficiency with software pertinent to their job descriptions.

4.b.1.b June 2016, 75% of teachers and administrators will reach an intermediate level of proficiency with software pertinent to their job descriptions.

4.b.1.c June 2017, 85% of teachers and administrators will reach an intermediate level of proficiency with software pertinent to their job descriptions.

4.b.1.d June 2018, 100% of teachers and administrators will reach an intermediate level of proficiency with software pertinent to their job descriptions.

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Complete self-assessment survey	July 2014 – June 2016	review of survey	Education Technologist
Offer training modules that address the needs found in the survey	July 2014 – June 2016	review of survey	Education Technologist
Compare survey results with the baseline data	July 2014 – June 2016	review of survey	Education Technologist
Report results to all stakeholders	July 2014 – June 2016	Annual report	IT Officer

Goal 4b.2: All teachers will use software and technology to support the Common Core State Standards and personalized learning.

Objective: By June 2018

4.b.2 100% of teachers will use software and technology to support the Common Core State Standards and personalized learning as measured by usage data.

Benchmarks:

4.b.2.a June 2015, 70% of teachers will use software and technology to support the Common Core State Standards and personalized learning

4.b.2.b June 2016, 85% of teachers will use software and technology to support the Common Core State Standards and personalized learning

4.b.3.c June 2017, 100% of teachers will use software and technology to support the Common Core State Standards and personalized learning

4.b.3.d June 2018, 100% of teachers will use software and technology to support the Common Core State Standards and personalized learning

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Collaborate with Rogers Foundation's Next Generation Learning Collaborative personalized learning grant	July 2014 – June 2016	Participation	Director of Technology
Offer workshops on personalized learning	July 2014 – June 2018	Workshop surveys	Education Technology Specialist
Offer site models to teachers	July 2014 – June 2018	Surveys	Principals
Launch Professional Learning Communities (PLC's) on personalized learning	July 2014 – June 2018	PLC surveys	Education Technology Specialist

Goal 4b.3: All education staff will receive training on how to access and interpret student data to inform instruction

Objective: By June 2018

4.b.3 100% of education staff will receive training on how to access and interpret student data to inform instruction and measured by Professional Development participation, teacher surveys, and principal observations.

Benchmarks:

4.b.3.a June 2015, 70% of teachers will receive training on how to access and interpret student data to inform instruction.

4.b.3.b June 2016, 85% of teachers will receive training on how to access and interpret student data to inform instruction.

4.b.3.c June 2017, 85% of teachers will receive training on how to access and interpret student data to inform instruction.

4.b.3.d June 2018, 100% of teachers will receive training on how to access and interpret student data to inform instruction.

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Implement Data Warehouse for principals and District Office	July 2014 – June 2015	Survey	Assistant Superintendent of QAA
Continuous Assessment System and SIS training	July 2014 – June 2017	Survey	Assistant Superintendent of QAA
Implement Data Warehouse for principals and District Office	July 2015 – June 2016	Survey	Assistant Superintendent of QAA
Data modeling training	July 2015 – June 2017	Survey	Assistant Superintendent of QAA

4c. Goals and Plan for Professional Development

Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities

Principal Professional Learning:

The OUSD CCSS Full Implementation Guide for Principals outlines professional learning opportunities that will support the development of knowledge, skills and leadership dispositions needed for teachers, teacher leaders and administrators to support student academic growth in these three instructional areas. In addition, this guide provides clear site-based expectations for full CCSS and SBAC-aligned assessment implementation. There will be bimonthly network sessions and quarterly all administrator meetings to

- Build capacity around observing and providing high-quality feedback to teachers on instructional shifts
- Develop and facilitate Instructional Leadership Teams (ILT) to support CCSS and SBAC-aligned assessment implementation and site-based progress monitoring of implementation
- Build capacity of K-12 ELA and mathematics teacher leaders in leading site-based professional learning focused on instructional shifts, use of core curriculum guide and units
- Instructional Rounds as a process for school sites and district staff to examine change in student practices as a result of CCSS-aligned instructional shifts
- Build capacity around use of SBAC-aligned assessments within a data-driven cycle of inquiry
- Integration of Social-Emotional Learning (SEL) competencies within professional learning sessions to support continuous leadership growth

Teacher Leader Professional Learning

Frequency of sessions: monthly elementary and secondary district-wide teacher leadership networks to:

- Build capacity around ILT participation to support CCSS and SBAC-aligned assessment implementation and site-based progress monitoring of implementation
- Build capacity of ELA and mathematics Teacher Leaders in leading site-based professional learning focused on instructional shifts
- Build knowledge and skills to use CCSS-aligned resources: core curriculum guide, core curriculum units, 5x8 cards, and CCSS-aligned instructional toolkits
- Build capacity of teacher leadership skills with focus on integrating SEL competencies

Teacher Professional Learning

Frequency of sessions: monthly ELA and mathematics sessions for all secondary teachers, three district professional learning days for all elementary and secondary teachers on ELA and mathematics CCSS, summer institute professional learning sessions for Pre-K-12 teachers and monthly professional learning communities for Pre-K, Transitional Kindergarten (TK) and 1st grade teachers:

- Monthly ELA and mathematics secondary professional sessions focused on the three instructional shifts, CCSS-aligned curriculum, and SBAC-aligned assessments
- District-wide Pre-K-12 professional learning focused on instructional shifts in CCSS and use of SBAC-aligned assessments to inform instructional decision-making. Sessions will include targeted support for academic needs of: English Learners, Students with Disabilities, and Low- and High-Achieving Students.
- Summer professional learning institutes⁵ will continue to focus on CCSS-aligned curriculum, instructional practices and SBAC-aligned assessments, with specific attention to ELLs, SwD, and Low- and High-Achieving Students

The OUSD LCI, QAA, and Instructional Technology teams will use multiple measures to continually monitor the progress and success of the Technology Professional Development activities. Evaluation data will be collected from each participant using an online survey after each professional development session. This information will be collected and reviewed each semester by the Instructional Technology Team and a report will be submitted to the Information Technology Officer and the Assistant Superintendent for LCI.

The Instructional Technology team will convene a representative working group of instructional leaders, evaluation and assessment specialist, and site teacher leaders and administrators to review professional development offerings and suggest additional offerings. The goal of this group is to provide feedback so courses and a variety of professional development opportunities are developed and delivered to increase teacher use of technology solutions to support student achievement and improve teaching practices.

Monitoring and evaluation for Professional Development goals takes several forms, depending on the activity. Within the table for each main goal, in the preceding sections, we have included a brief description of the process that will be used to monitor whether our professional development goals are being met and whether the planned professional development activities are being implemented in accordance with our benchmarks and timeline.

Primary responsibility for Professional Development goals falls to the Assistant Superintendent of Instruction, but Technology Professional Development is the realm of the IT Officer and the Education Technology Specialist.

Monitoring professional development includes:

- Monthly meetings of the technology staff to review the progress of the technology plan
- Annual technical skills surveys in June of each year with overall improvement year-to-year for 50% of staff not already “proficient”
- Initial training for staff on key technologies that support curricular goals (identified in 3d – 3h) prior to deployment of the specific technologies
- Initial training each August for new staff on key technologies that support curricular goals identified in 3d – 3h
- Refresher training each June for existing staff on key technologies that support curricular goals identified in 3d – 3h

Goal	Description	Monitoring Process	When	Responsible Party
1: Trained in technology for job functions (Goal 4.b.1)	Staff is trained in using technology for job success	Observations, Surveys, and evaluating the survey results	Ongoing	IT Officer
2: Trained in technology for Common Core (Goal 4.b.2)	Staff is trained in using technology for Project Based Learning	Observations, Surveys, and evaluating the survey results	Ongoing	Education Technology Specialist
3: Interpret Student Data (Goal 4.b.3)	Staff is trained in using data to improve instruction	Regular review of test data	Survey	Director of QAA

5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE

Telecommunications and information technology provide the foundation, scaffolding, and enhancements leading to the success for students, staff, and support personnel. The Oakland Unified School District's infrastructure goals are not derived in isolation, but with the vision and goals of the entire district in sight.

5a. Existing Infrastructure

Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components (Sections 3 & 4) of the plan

In the following discussions of existing infrastructure, future needs are identified and described immediately following each topic. *Future needs are presented in italicized text.*

Physical Sites

Each school dedicates a room or area to be its Main Distribution Frame (MDF). Here we work to have updated the electrical, cooling, and security as needed. The networking and telephone equipment terminates in this room. From the MDF, we generally run fiber to the Intermediary Distribution Frames (IDF's). There is varying quality of these installations. The Technology Department is currently evaluating all these connections. The goal is the ability to run 10 GB between these points. Upgrades to the wiring and switches as some sites will be necessary.

The District presently runs Category 5 or 6 wiring (sometimes through conduit) to all required endpoints to provide voice and data communication to all classrooms and offices. There is a minimum standard of one drop per classroom or work space. Offering wireless network access throughout the facility enables us to minimize plant modifications. Currently the District has standardized on Cisco Meraki wireless. This system is controlled at the Technology Offices.

Our Technology Offices are the center of infrastructure.

Networking and Telecommunications Infrastructure

Internet Access

The District's Internet Service provider is AT&T and Comcast. The District Technology Department provides filtering from all school sites. Internet access is through dual fiber optic connections at 1 Gb and 300Mb. All schools are networked to the Technology offices by a WAN connection.

The diagram illustrates a complex network architecture for a school district, divided into two main data centers: the Primary DataCenter and the DR DataCenter, connected via a central WAN Cloud.

Primary DataCenter:

- Connected to a PSTN via a Voice Router using PRI.
- Internal network includes a Firewall, Catalyst 3k switch, and Internet WAN Router.
- Connects to the Internet via a Primary Internet Connection through an ISP owned Router.
- Core switches include Nexus 7010 (replaced Catalyst 6509) and Nexus 5k with FC and 10GE ports.
- Storage is connected via FC/FCoE to a Cisco UCS B-series server blade system with VMware ESX.

DR DataCenter:

- Similar setup to the Primary DataCenter, but with a Secondary Internet Connection.
- Core switches include Nexus 7010 (replaced Catalyst 6509) and Nexus 5k with FC and 10GE ports.
- Storage is connected via FC/FCoE to a Cisco UCS B-series server blade system with VMware ESX.

WAN Cloud:

- Acts as the central hub connecting the Primary and DR DataCenters.
- Connects to three schools: Elementary School, Middle School, and High School.

Schools:

- Each school has its own WAN Router connected to the WAN Cloud.

Hardware varies at each site depending upon whether it qualified for federal funding for internal connections or budget allocations at the site level; however, the purpose and function of each of these local networks is the same:

- The table below indicates the connectivity from schools to the District Office and the District Office to the ISP.

Table 5.1. WAN Data Connectivity

School Type	WAN speed 2013	<i>WAN speed 2014</i>	<i>WAN speed 7/2015</i>
Elementary	20 Mb/sec	100 Mb/sec	1 Gb/sec
Middle Schools	50 Mb/sec	200 Mb/sec	1-5 Gb/sec
High Schools	100 Mb/sec	500 Mb/sec	1-5 Gb/sec

The District will continue E-Rate eligibility and qualify for reduced fees on Internet Access services by updating the District Technology Plan and certifying it with the CDE.

Traditional Telephony

Phone, fax, and alarm service are via POTS lines provided by AT&T. The department handles call routing and message handling using telephone switches at the sites.

Cell Phones

The District have cell phones on a group plan that are funded by departments.

For funding year 2014-2018, OUSD has opted to apply for E-Rate funding for cell phone service.

Local Area Network (LAN)

Cabling is patched at the MDF and IDF's. The District runs at least 1CAT 5/6 cable to each classroom. At some classrooms we dedicate 1 port for a Power over Ethernet (POE) wireless access point where we use Cisco enterprise wireless access points (AP's).

In the MDF and IDF we have HP switches that operate at 1000 MB/sec. They have 1000 MB/sec. uplinks with the capability of 10 GB.

The District creates an 802.11a, g, and n wireless network that joins all the access points into one accessible network that all administrators, teachers, and students can access campus-wide. The goal is to have each site completely wireless by 2016.

The District Facilities and Technology Departments require professionally installed cabling and properly procured, licensed and supported equipment.

The basics of OUSD installations include:

- 10 Gigabit (GB) backbone Cisco switch to connect to metropolitan Ethernet Wide Area Network (WAN)
- 10 GB multi-mode fiber for all MDF-IDF runs
- Minimum 48 ports per MDF and IDF (wiring closets)
- Cisco power over Ethernet (POE) switches to provide power to wireless access points and other devices such as Voice over IP (VOIP) phones
- CAT 6 wiring for all cable runs to end points from MDF and IDF to all spaces to provide anywhere wireless access on the school site
- Cisco Meraki AP MR 34 or better, cloud-managed wireless access points (WAP's or AP's) for each classroom or workspace to provide anywhere wireless access on the school site

Fiber Cable Specifications

- 12-strand MM 50/125u, OM4, Indoor/Outdoor, Tight Buffer
- FAP loaded with six SC 10G Duplex MM FO Adapters, OM4
- Fiber Optic, 12-Fiber (*Fan out Kit not needed when you use Tight Buffer*)
- LC Multimode Connector, Ceramic Ferrule, 50/125u, OM4
- Must homerun IDF to MDF
- Neither aerial fiber nor wireless bridges are allowed. Trench, if required.

CAT 6 Cable Specifications

- Data drop color for cable and jack is blue except for AP.
- Data drop color for cable and jack is orange for AP

Classrooms:

- 2 drops to clock area 1 high, 1 low (with 25' coil near terminus, if possible) and 4 more on separate walls in pairs, 6 total in classroom. 1 high near clock is for WAP.

Other Rooms:

- 2 drops to Clock area 1 high, 1 low (with 25' coil near terminus, if possible) and see chart for more on separate walls in pairs. 1 high near clock is for WAP.

Work Area	Total Drops
Office Area	8
Computer Lab	36
Library	8
Multi-Purpose	8
Gym	4
Cafeteria	4
Outside	2
CDC Classroom	4

Wireless Access Point Specifications

- Use Meraki MR 34 with 5 year license
- 8 foot high ceiling: 7.5 feet from the ground.
- More than 8 foot high ceiling: 8.5 feet from the ground.
- Wall mounted (not ceiling)
- Installation approval and configuration and licensing by OUSD Technology Department

Cabinet Specifications**All Cabinets**

- Use 24 and 48 port patch panels to accommodate 48 port switches.
- Structured cabling solution is:
- Cable by General Cable
- Termination by Panduit
- Patch cable and jack is blue except for AP.
- Patch cable and jack is orange for AP

Cabinet in MDF

- Install full-size, floor-mounted, fully enclosed, lockable cabinet in MDF, minimum of one cabinet per MDF. (Note: if there is insufficient room for a fully enclosed cabinet, a two-post aluminum rack may be substituted only with the written permission of from the OUSD Facilities or Technology Departments).

Cabinets in Large IDFs (greater than 48 terminations)

- Install full-size, floor-mounted, fully enclosed, lockable cabinet in each IDF, minimum of one cabinet per IDF. (Note: if there is insufficient room for a fully enclosed cabinet, a two-post aluminum rack may be substituted only with the written permission of the OUSD Facilities or Technology Departments).

Cabinets in Small IDFs (48 terminations or fewer)

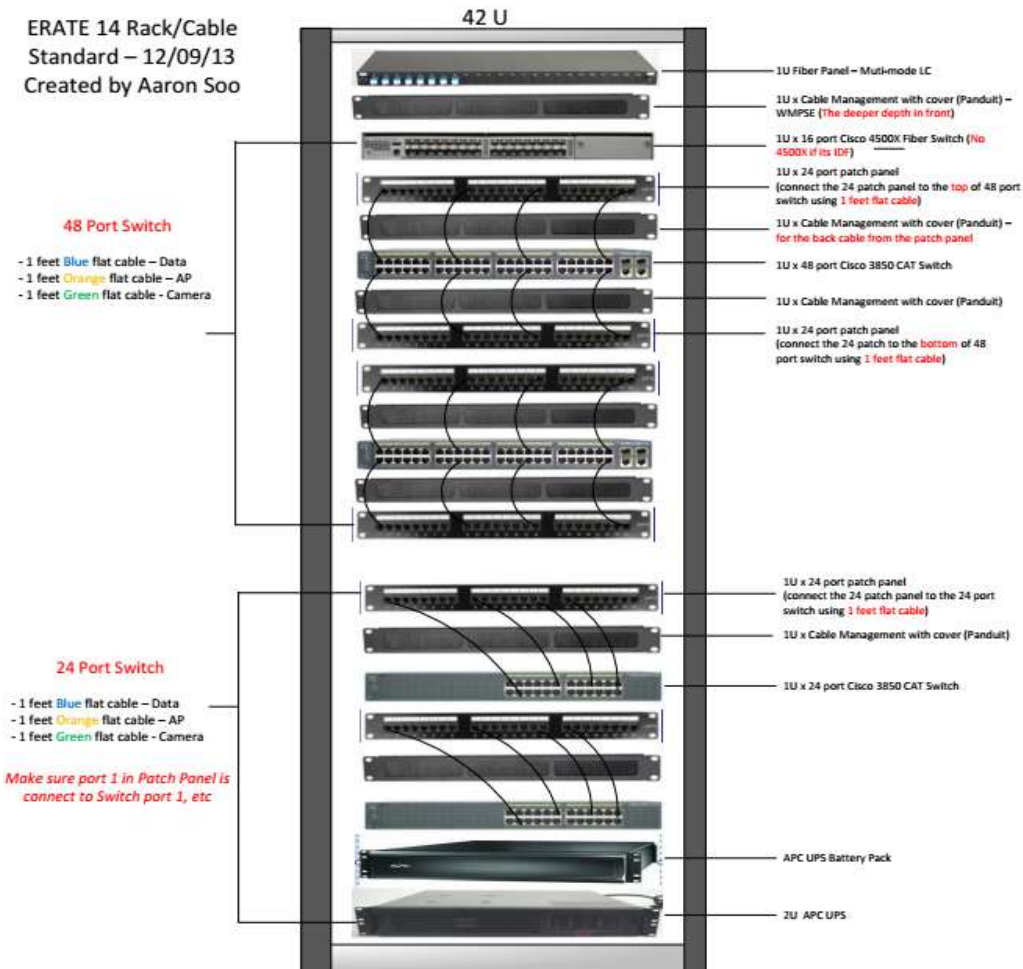
- Install one 16-gauge wall-mount cabinet with dual hinged lockable solid doors (front and back), having minimum dimensions of 36" high x 30" depth x 24" wide and maximum dimensions of 48" high x 30" depth x 24" wide, 250 cfm exhaust fan, drilled EIA standard hole spacing, and vented side panels for mounting equipment specified herein at the Small IDF.
- Minimum 48" cabinet is required. Other (36" or 24" cabinets) are permitted with OUSD permission

Network Equipment Information (Spring 2014)

- Cisco Catalyst 3850 48PT POE IP BASE Switch – MDF and IDF with 5-year 8x5xNBD Smartnet support, 10 GB CISCO SPF modules in minimum of 2 slots
- Cisco Catalyst 4500X switches – MDF only with 5-year Smartnet 8x5xNBD support 10 GB CISCO SPF modules in all slots
- UPS in each closet with capacity to run all network equipment for 4 hours
- Meraki AP MR34 with 5 years subscription

Rack Elevation:

ERATE 14 Rack/Cable
Standard – 12/09/13
Created by Aaron Soo



Hardware

Hardware and the current rate of replacement are not adequate to meet all phases of the District technology plan and are aging. The District has over 10,000 Windows and Apple computers distributed all school sites. All schools have at least one computer in the classroom and access to a computer lab. Some schools within the District have mounted TV/VCR/Computer workstations in the classrooms. Projectors and document cameras have become a standard with teachers. The District has developed a model standard that includes a portable smart board, projector, document camera, iPad, laptop, and wireless access point. This configuration has been deployed to over 40 classrooms in the District via the Toyota Grant.

The District set a minimum and recommended standard in 2014 for computers. The minimum standard is what is supported while the recommended standard is what should be purchased. Both are adequate for the Common Core testing requirements. The minimum standard is an Intel Dual Core or Core 2 Duo processor, 1 GB Ram, 80 GB hard drive and either at least Windows 7 or Macintosh OS 10.8. The recommended standard is an Intel i3 processor, 160 GB hard drive, Windows 8 or Macintosh OS 10.9. Computers that do not meet the minimum standard are either removed from inventory or receive a sticker that they are not supported.

The District purchased 9000 Chromebooks to help schools replace current outdated computers and to prepare for Common Core testing. The rate of replacement is planned on a five-year cycle.

Since 2011 the District has moved to a virtualized server environment as much as possible. Additionally, new antivirus and filtering equipment was purchased in order to comply with the Children's Internet Protection Act.

Electronic Learning Resources

Presently school sites are responsible for the purchase of their own productivity and educational software. The District's Technology Department is responsible for the purchase and maintenance of all administrative equipment and software as well as the maintenance of the equipment and software purchased by school sites.

Software and Electronic Resources

Electronic Resources	
<i>Resource</i>	<i>User/Subject Area</i>
Oakland Unified Website	All grades, subjects
Destiny (Online Library Catalog)	All grades, subjects
Intranet	All grades, subjects
Electronic Resources, teacher resources, and Internet sites related to textbooks at all levels	All grades, subjects
EDUSOFT Student Data and Assessment Program	All grades, subjects
Aeries SIS	All grades, subjects
Alameda County Library Resources and Databases	All grades, subjects
Video Streaming	All grades, subjects
iPads	All grades, subjects
Electronic Databases	All grades, subjects
All grades, subjects	All grades, subjects
Teaching and Learning Software	
Microsoft Office (District License)	All grades, subjects
LEXIA	All grades, subjects

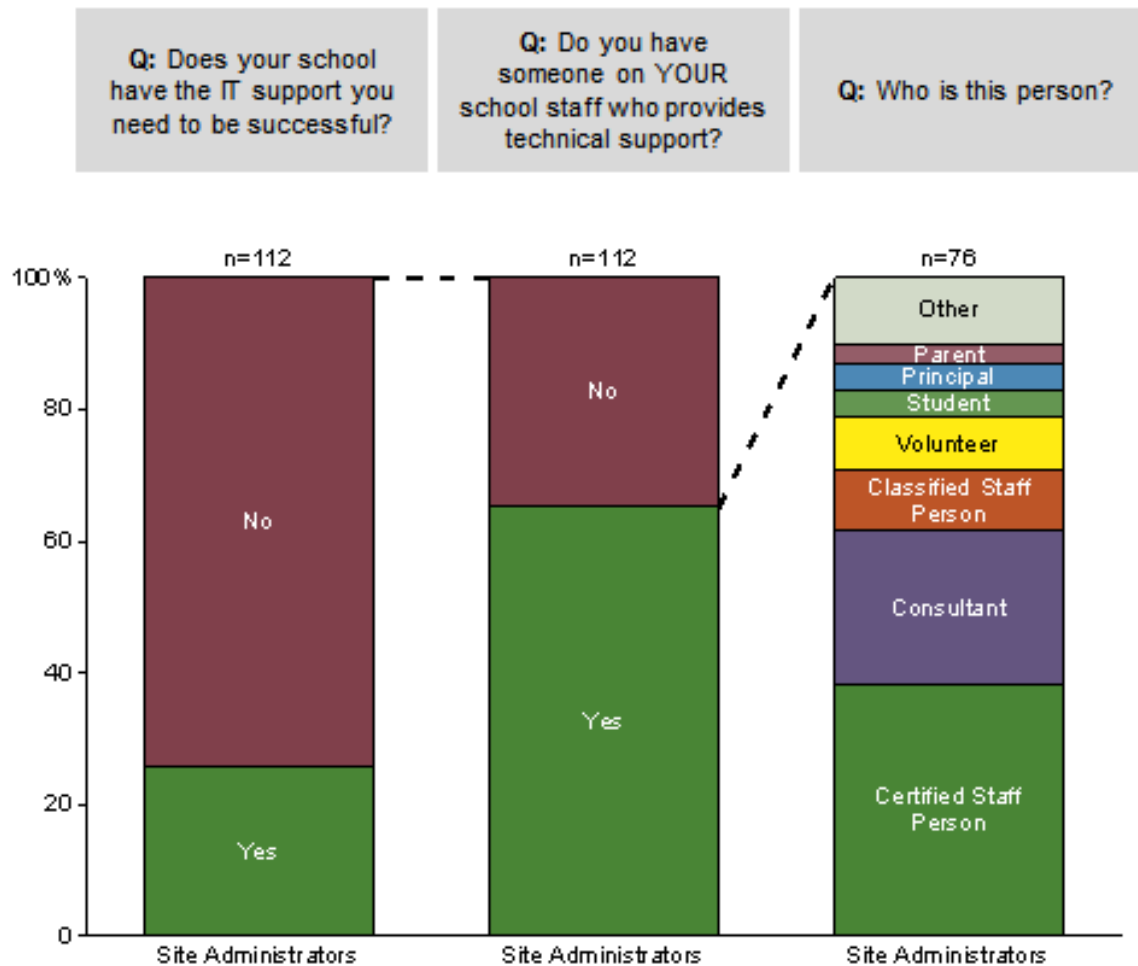
Accelerated Reader (AR)	Language Arts K-4
Rosetta Stone	Language Arts, 7-12
Adobe Suite	All grades, subjects
Google Apps/ Microsoft 365/iWork	All grades, subjects
ST Math	Math 1-6
Various Edtech free and paid Applications: Achieve 3000, i-Ready, Kahn Academy, etc.	All grades, subjects

Technical Support

OUSD has a Technology Department led by the IT Officer and the Director of Support and Customer Service hired in late Spring 2014 directly leads technical support.

As of 2013-2014 technical support did not meet Administrators' needs.

Almost 80% of Site Administrators lack the technical support they need to be successful



Source: OUSD SBAC Readiness Survey, 2013;

The Technology Department is establishing process and procedures to provide better support to students, staff, and administrators:

- Establishment of a technology service desk providing first tier support
- A new work order ticketing system monitors and manages requests for all technical support
- Network monitoring software provides real time notification of WAN conditions
- An asset management system which provides for monitoring of all assets in the District

Current ratio of technicians to sites is 1:20.

The Technology Department currently has staff with expertise in enterprise applications and operating systems as well as network systems. While the District has Apple computers and iPads,

support for these are limited and warranties and third-party support is necessary for Apple equipment.

The Technology Department also provides project management for all technology related projects.

Due to the high ratio of computers to technicians currently at the District, many schools have enlisted the help of other resources to provide technical assistance on an as-needed basis.

Our replacement policy for obsolete equipment is described in section 6c.

Security and Child Safety Issues

Outlined in the following are the additionally necessary Security and Child Safety Issues, comprised of these sub-sections: Physical Security, Data Security, and Appropriate Use.

Physical Security

The Oakland Unified School District has security procedures and is developing a comprehensive security plan. Currently all schools have alarm systems and 20 schools have district-supported video surveillance systems. All new computer carts are locked to the walls.

The district Theft Prevention Plan summarizes the overall physical security plan.

Goal: To prevent large break-ins where a large number of laptops are stolen at any one time

Unfortunately, securing an entire school building is impossible. However, we strongly suggest that each school site have a monitored alarm system and a monitored security camera system for its outside entry doors. Currently all schools have an alarm system. The security camera initiative at 21 sites is a start. Cameras will be addressed in a separate School Security initiative.

We can go a long way toward securing our laptops from a facilities perspective by establishing a dedicated Computer Storage Rooms(s) (CSR) at all schools rather than leaving carts in classrooms or hallways.

Computer Storage Room (CSR): Because all of our school sites have different physical plants and layouts, it is impossible for all CSRs to be uniformly located across the district. When choosing CSR sites, schools should keep the following characteristics in mind:

- The CSR room should have a single locking door as the only means of access. It should not have a window.
- If at all possible, a CSR should NOT be located on the first floor of the building and should not be used for anything other than computer storage.
- It is best to have a CSR within a room that is also locked to add layers over protection.
- The CSR should have a unique key with few copies.
- The CSR room should have sufficient wall space for the device cart to be secured directly to the wall with a cable and Master lock system installed by Buildings & Grounds (4 ft. wide and 2 ft. deep).
- The wall space should be located within 10ft of an outlet for charging the Chromebook cart overnight.

Carts: Inside the CSR, computers will be housed in locked carts. These cabinets have two levels of security. First, the front and back doors to the cart will be locked. The front door will have a combination lock managed by the site Instructional Technology Teacher Leader (ITTTL). The back door combo lock, with access to the chargers, will be managed by the Technology Services Department. Second, the cart will always have its doors facing the wall. Building and Grounds will install anchors into studs in the walls. Third, a cable threaded through the eye bolts will attach the cart handles to the wall and be secured with a Master lock. The ITTTL will manage this key.

Keys & Limiting Access: The door to the CSR itself will have an additional lock and key. The lock should be different from all other locks in the building and key access to the CSR room should be limited to no more than the Principal, school secretary, library staff member, and Instructional Technology Teacher Leader. A lanyard for each cart will contain all the keys for a staff member to use the cart: Keys to CSR, docking station, boot, and the cart itself. The lanyards will be available for check-out from the ITTTL. An online check-out system is being developed by Technology Services to reserve and track each cart's use.

Nightly Storage: Because the CSR room and carts provide maximum security, it is required that all computer carts be returned to the CSR at the end of every school day for nightly and weekend storage.

However, because we realize that storing all computers in a single location is neither feasible nor even advisable, it is advisable to have multiple CSRs.

Summary: From a facilities perspective, the primary goal is to prevent a large number of laptops from being stolen all at once. This can best be accomplished by monitoring and alarming the main entry points to your building, providing enhanced security to a single room (CSR) within your building, creating several physical layers of security within the CSR, limiting access to the CSR, and ensuring that the majority of your technology is returned to the CSR on a nightly basis.

Goal: To signal to students and staff that we are able to track, disable, and recover laptops when and if they are removed from campus.

Technology Measures

Technology measures will be employed at district expense as part of the purchasing fulfillment and will not be passed to the sites.

All laptops, Chromebooks, and tablets will be etched with the district name and logo to provide a permanent “tattoo” to discourage theft and resale.

All laptops, Chromebooks, and tablets will have a district asset tag and RFID to track inventory and discourage theft.

All laptops will have Absolute Software’s “LoJack” which makes stolen laptops traceable and recoverable by police.

All Chromebooks and iPads will use GPS technology to monitor and locate stolen equipment.

All district assets will be part of an online asset tracking and monitoring system to monitor the availability of assets.

Data Security

Currently, to protect data on site, the District uses RAID 11 technology to spread data across disks, uses back up software to move data from production systems, and uses tapes to move data off site. In the case that a server malfunctions, data can be replaced within 15 minutes with no loss of data. Our Unified Threat Management device protects data from viruses, restricts unauthorized access, and filters Internet content.

The district has acceptable use policies to help staff and students secure cloud-based files and emails. Online systems monitor online data in place and in transit.

Our centralized Active Directory and Google directory provides single sign-on capability while providing authentication and authorization to resources. Password policies help ensure security.

Appropriate Use

There is a standard Acceptable Use Policy for both students and staff.

Outside Expertise

The IT Officer sometimes brings in experts to guide us on specific projects. Apple, Cisco, Dell, HP and others have been instrumental in providing training and expertise in the implementation of technology. We have contracted with consultants in the course of developing this technology

plan and E-Rate funding applications. We use outside vendors often for repair of equipment not under warranty.

Our technology staff, administration, and teachers attend conferences to stay abreast of current trends in Technology and Education. Sample conferences are the California Education Technology Professionals Association (CETPA), Computer Using Educators (CUE), and other industry and professional convenings.

5b. Infrastructure Needed

Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan

The following table summarizes target quantities for various categories of infrastructure over the next few years.

Hardware Type	2014-2015	2015-2016	2016-2017	2017-2018
Student Computers/laptops/mobile devices (including 9000 Chromebooks purchased Spring 2014)	17000	2000	2000	2000
Staff Computers/laptops/mobile devices (including 500 Chromebooks leased Spring 2014)	3500	1000	1000	1000
Servers/Network Appliances	25	25	25	25
Switches	400	100	100	20
Wireless Access Points (WAPS)	1500	1000	100	200

The following infrastructure is needed to support the activities in the Curriculum and Professional Development Components of the plan.

Networking and Telecommunications Infrastructure³**E-Rate**

- Telecommunications and Internet Access requests complete for up to 500 POTS phone lines 1000 MB circuits for each site by 2016
- Voice over IP (VOIP) services

Other funding

- Video services
- Messaging services

Hardware**E-Rate**

- Internal Connections request to be completed for qualifying schools for servers, switches, and wireless access points.

Other funding

- Switches and wireless access points not covered by above to maintain modern wireless access throughout each site
- Core infrastructure to provide servers to support applications and end user computing
- Student, teacher, and staff devices

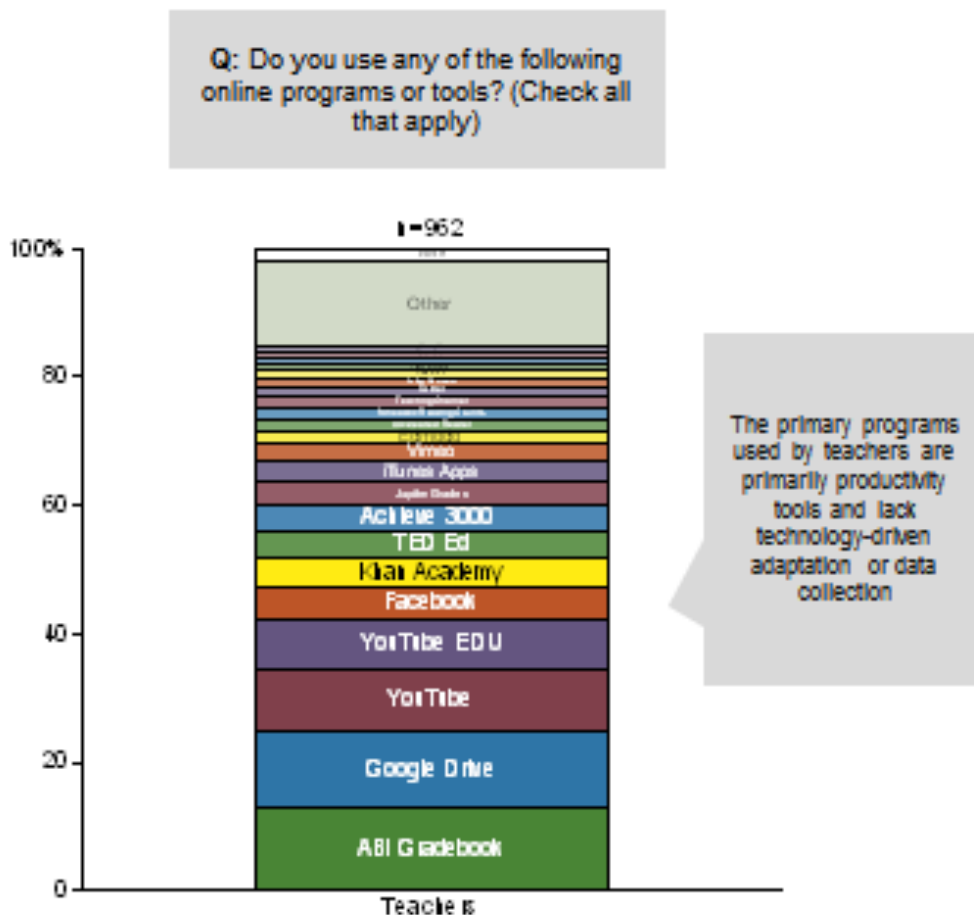
Electronic Learning Resources**E-Rate**

- Internet Access for websites and email

Other funding

- Fees for applications for all subjects, especially Math and ELA, for example ST Math, Achieve 3000, etc.
- New data warehouse, learning management system, human capital information system, finance system, student information system, etc.

The following chart shows the use of Electronic Learning resources as reported in Fall 2013.



Source: OUSD SBAC Readiness Survey, 2013

Physical Plant Modifications**E-Rate**

Internal Connections requests 10Gb fiber and CAT6 wiring for qualifying schools.

Other funding

Updates to cooling in wiring closets and data centers

Modifications to support anytime and anywhere wireless access

5c. Infrastructure, Hardware, Technical Support and Software Component

List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b

Goal 5c.1: Oakland Unified School District infrastructure will be upgraded to meet the needs and demands of current and future technology resources**Objective: By June 2016**

5.c.1 All sites will be connected by at least 1000 Mb/sec. fiber Ethernet connection. All sites will then connect over a shared connection to the Internet at 10,000 Mb/sec. Objective will be measured by bandwidth monitoring tools.

Benchmarks:

5.c.1.a By August 2015, 100% of sites will be connected by a 1000 Mb/sec. fiber Ethernet connection. All sites will then connect over a shared connection to the Internet at 1000 Mb/sec.

5.c.1.b In July 2016, 25% of sites will be connected by greater than 1000 Mb/sec. fiber Ethernet connection. All sites will then connect over shared connections to the Internet at 20,000 Mb/sec.

5.c.1.c In July 2017, 500% of sites will be connected by greater than 1000 Mb/sec. fiber Ethernet connection. All sites will then connect over shared connections to the Internet at 2000 Mb/sec.

5.c.1.d In July 2018, 75% of sites will be connected by greater than 1000 Mb/sec. fiber Ethernet connection. All sites will then connect over shared connections to the Internet at 2000 Mb/sec.

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Complete the install process of moving Elementary Schools to 100 MB	Summer 2014	Review plan and check milestones	IT Officer
Install necessary switches and wireless access points	Summers 2014-2015	Review plan and check milestones	IT Officer
Install additional upgraded wiring, cooling, and wiring	Summers 2014-2015	Review plan and check milestones	IT Officer
Maintain networks	July 2015 – 18	Quarterly reports	IT Officer

Goal 5c.2: The Oakland Unified School District staff and students will have the technology needed to meet its curricular needs

Objective: By June 2018

5.c.2 100% of staff and students will have the technology needed to meet its curricular needs to achieve personalized learning and Common Core Standards as measured by the SBAC (CAASP) testing

Benchmarks:

5.c.2.a In June 2015, 90% of staff and 50% of students will have the technology needed (computers and peripherals) to achieve personalized learning and Common Core Standards

5.c.2.b In June 2016, 95% of staff and 75% of students will have the technology needed (computers and peripherals) to achieve personalized learning and Common Core Standards

5.c.2.c In June 2017, 100% of staff and 90% of students will have the technology needed (computers and peripherals) to achieve personalized learning and Common Core Standards

5.c.2.d In June 2018, 100% of staff and 100% of students will have the technology needed (computers and peripherals) to achieve personalized learning and Common Core Standards

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Evaluate SBAC field test experience from survey data	Summer 2014	Report to Principals	IT Officer
Complete infrastructure upgrades so every classroom has 802.11 n and ac capability and every site has minimum 1GB connectivity	July 2014 – July 2015	Report to Principals	IT Officer
Create menu of educational applications that schools can utilized	July 2014 - June 2015	Report to Principals	Educational Technologist
Create a platform and professional development for Personalized Learning	July 2014 – June 2018	Report to Principals	Educational Technologist

Goal 5c.3: The Oakland Unified School District staff and students will have the electronic learning resources needed to meet its curricular needs

Objective: By June 2018

5.c.3 100% of staff and students will have the curricular resources needed to meet its curricular needs as measured by surveys to teachers and principals

Benchmarks:

5.c.3.a In June 2015, 90% of staff and 50% of students will have the curricular resources needed to meet their needs

5.c.3.b In June 2016, 95% of staff and 75% of students will have the curricular resources needed curricular resources to meet their needs

5.c.3.c In June 2017, 100% of staff and 90% of students will have the curricular resources needed (to meet their needs

5.c.3.d In June 2018, 100% of staff and 100% of students will have the curricular resources needed (to meet their needs

Implementation Plan Activities	Timeline	Monitoring/ Evaluation	Responsible Party
Roll out staff and student Office 2012/ MS 365 and Google Apps	July 2014 – December 2015	Report to Principals	IT Officer
Purchase base software necessary for Common Core Standards	July 2014 – June 2016	Report to Principals	Principals
Evaluate applications and services for Common Core Standards and purchase as necessary	July 2014 – June 2018	Report to Principals	IT Officer
Purchase additional Chromebooks for Personalized Learning and SBAC testing as needed	July 2014 – June 2018	Report to Principals	IT Officer

5d. Monitoring Process for Infrastructure

Describe the process that will be used to monitor Section 5b & the annual benchmarks and timeline of activities including roles and responsibilities

The implementation of curriculum goals for technology access, professional development, and integration will be overseen by the IT Officer and Assistant Superintendent of Leadership, Curriculum and Instruction (LCI). Collecting and evaluating relevant data regarding the scope, sequence, and outcomes of the above goals will be conducted annually by the Assistant Superintendent of Quality, Accountability, and Assessment (QAA), site principals, and the LCI Department led by the Deputy Superintendent.

Goal	Description	Monitoring Process	When	Responsible Party
1: Infrastructure (Goal 5.c.1)	The connectivity within and among the sites and the Internet	We will continue monitoring of usage. We will do a staff survey each June.	Monthly Each June	IT Officer Site Principals
2: Hardware (Goal 5.c.2)	Technology necessary to meet the curricular needs of schools	Technology staff will remotely monitor all inventory	Reports each June	Principals
3: Electronic Resources (Goal 5.c.3)	Software and services to meet the curricular needs of schools	We will do a staff survey each June.	Each June	Principals
4: Facilities (Goal 5.c.4)	Adequate building upgrades to enable infrastructure, hardware, and electronic resources to meet the curricular needs of Oakland Unified School District	Technology team will do yearly evaluations.	Each July	IT Officer Assistant Superintendent of Facilities

6. Replacement Policy for Obsolete Equipment

Describe the district's replacement policy for obsolete equipment

The life expectancy of a computer is typically about three years in industry, but likely closer to seven years in education. Generally, we plan to find new uses for older equipment until it ceases to function. The computer purchasing assumptions for this plan are based on five years of useful life.

The Technology Department has created a minimum supported standard. To make it easy on the end user, it is currently stated that our minimum standard is Windows 7 and Macintosh OSX. The technicians regularly tag obsolete computer with a sticker that states “Does not meet minimum standards. Not supported by OUSD”. Obsolete computers can be used at the computer site so long as they can support current security technologies.

The District plans to create a plan to provide a minimum level of technology equipment and develop a life cycle plan. Sites may supplement district funded equipment with their own budgets and donations for equipment standards.

7. MONITORING AND EVALUATION COMPONENT CRITERIA

7a. Evaluation of Technology Impact on Teaching and Learning

Describe the process for evaluating the plan's overall progress and impact on teaching and learning

The OUSD Instructional Technology Plan is a dynamic document. Our primary purpose in developing this plan is to provide direction for district and site technology and budget decision-making processes. This document will help the district assess the impact on student learning, teacher instruction and the management of technology resources. Measurable monitoring and evaluation criteria have been specified for each curricular goal and timeline throughout the plan. The Leadership, Curriculum and Instruction (LCI), Instructional Technology, and Research and Assessment teams will have the responsibility for the monitoring and evaluation of each component of this plan.

The Education Technology Team will have the responsibility of continuing their work with existing stakeholders, such as teachers, principals, teacher leaders, Leadership, Curriculum and Instruction (LCI) and other district staff in monitoring and evaluating the progress of implementing the Plan's goals and objectives. Teacher leaders and/or principal designees will assist with data collection and solicit input from their staff, administrators, support staff, parents and students via interviews and surveys. The Education Technology Team with the assistance of the Teacher Leaders, Leadership, Curriculum and Instruction (LCI) and Research and Assessment will be responsible for the analysis of input from the various data collection instruments to determine the plan's impact and success on curriculum, professional development and classroom management.

The District's evaluation of the effectiveness of its Technology Plan is an ongoing process. We will use both informal and formal components to measure the effectiveness of our plan.

Throughout each phase we will conduct several informal conversations with students, parents, and district personnel to address their perceptions of the implementation of additional technologies into the district's learning environment.

A formal evaluation of the technology plan and its implementation will be completed each year, including preparation of the E-rate Supplemental Analysis Addendum. The Technology Plan will be formally reviewed on an annual basis by the educational technology team. It will also be reviewed by the Technology Services Department and the IT Officer. The efficacy of the existing plan will be evaluated, and the plan will be modified to correct shortcomings and to reflect changes recommended and agreed upon by the various reviewers. Every third or fourth year, a major revision and re-submission for CDE approval will be completed, thus supporting our ongoing intention to leverage E-Rate funding.

Successful implementation of technology will be determined by student achievement (as discussed in 3c).

7b. Schedule for Evaluation*Schedule for evaluating the effect of plan implementation*

Evaluation schedules include:

- Semi-annually - meetings of Technology Plan stakeholders
- Annually - parent/student/staff surveys
- Annually - review and update of Technology Plan

Additionally, progress versus the benchmarks established in this technology plan will be summarized in a semi-annual technology program audit report created under the supervision of the IT Officer, including recommendations for the upcoming period. These six-month reports may be informal, taking the form of a brief email summary.

Findings on the impact of technology on the curriculum and student learning will be compiled yearly into a technology section for the Annual Report, which will be made available to all stakeholder groups.

7c. Process and Frequency of Communications Evaluation Results

Describe the process and frequency of communicating evaluation results to tech plan stakeholders

The Education Technology Team (LCI, Assessment, and Technology Services represented) in collaboration with the teacher leaders, LCI, , Fiscal Services, and Research and Assessment will continue to monitor, evaluate, recommend, and make modifications as necessary to the plan's implementation. They will prepare an annual report to be presented to the cabinet that provides monitoring and evaluation data on the progress of the plan implementation. This information will be shared with district stakeholders in a variety of methods including, but not limited to email, posting on the public OUSD web site and intranet and through face to face meetings. District stakeholders will be responsible for providing input and offer suggested improvements in the plan. As changes to the plan occur on an on-going basis, the Instructional Technology Unit will be responsible for posting any plan updates during the 2014-2018 school years.

Information gathered will be used for internal decision-making, including the following: appropriate interventions for students; professional development recommendations for staff; and improvements in technology acquisition, deployment and support strategies. In the event progress lags behind the stated milestones, or achieved milestones do not meet the desired goals, the IT Officer will take appropriate corrective action.

The semi-annual technology program audit will feature:

- Evidence of how technology is impacting student learning and attainment of the district's curricular goals, as well as classroom and school management
- Activities, projects, and practices having a noticeably positive effect on teaching and learning
- Recommendations for the following period, both for improvements for areas not meeting the desired goals and for expanded efforts for areas exceeding the desired goals

The report will be shared with stakeholders in the school community, including the following: our staff; our students and their parents; the governing board of the school; the CDE; and other agencies as required. If major plan revisions are required, a revised plan will be prepared and submitted to the California Department of Education for recertification.

8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY

If the district has identified adult literacy providers, describe how the program will be developed in collaboration with them. (If no adult literacy providers are indicated, describe the process used to identify adult literacy providers or potential future outreach efforts.)

In its work to build and sustain excellent schools, Oakland Unified School District partners with certain Adult Literacy Providers who have outstanding reputations.

The district has a long history of collaboration with adult literacy providers. OUSD Instructional Technology staff has worked with the partners listed below and will continue to collaborate and build upon these relationships as we strive to mobilize the resources of our partners to meet the needs of those adults requesting adult literacy services.

The district's Adult Education Department currently offers a range of GED, ESL and adult literacy along with technology and other life-long learning classes at no charge to Oakland residents. Many Adult Education classes are housed on OUSD school sites and utilize shared equipment. The district serves about 25,000 to 30,000 adults city-wide. Adult Education conducts a special program for adults over 50 that include cultural programs in other primary languages as well as English. The Adult Education department has also developed an on-line education program to provide web-based classes to the community.

KDOL – TV cablecast programming promotes adult literacy to citizens city-wide.

The Marcus Foster Educational Institute (MFEI) conducts a Parenting University that includes classes in adult literacy and technology. Adult literacy courses are also offered through a number of district programs and partners, such as the 21st Century and Village Centers after-school programs. Oakland Technology Exchange West (OTX), a program of the MFEI, is a major partner in the OUSD EETT Competitive Urban Math Project as well as a provider of computers and parent training to the homes of low income families..

The four campuses of the Peralta Community College District provide a wide range of ESL, GED and adult literacy classes. Oakland Public Library has the Second Start Adult Literacy Program that has served more than 2,000 Oakland residents since its inception in 1984. The no-tuition program combines classes with one-on-one tutoring using community volunteers. Second Start was chosen as one of five model literacy programs in the U.S. to be included in a long-term Harvard University study. Members of OUSD staff meet and collaborate with these organizations to maximize efficiency and offer mutual support.

9. EFFECTIVE, RESEARCH-BASED METHODS, STRATEGIES, AND CRITERIA

9a. Relevant Research

Summarize the relevant research and describe how it supports the plan's curricular and professional development goals

Supporting Research for the use of technology proposed in this Technology Plan.

The report, *Tapping America's Potential: Gaining Momentum, Losing Ground Progress Report published in 2008 issued by the Business Roundtable (2008)*, is a follow up to the 2005 report, *Tapping America's Potential: The Education for Innovation Initiative*. It states that not only is there still a “deep concern” about the United States’ ability to sustain its scientific and technological superiority on a global level, but in addition, there is a desperate need for STEM majors to teach math and science in U.S. schools. Furthermore, the research is clear that one of the most important factors in raising student achievement is having a highly qualified teacher in the classroom. According to the Bureau of Labor Statistics, school districts are struggling to hire highly qualified math and science teachers.

The report, *The Ill-Prepared U.S. Workforce: Exploring the Challenges of Employer-Provided Workforce Readiness Training*, produced by Corporate Voices for Working Families, the American Society for Training & Development (ASTD), The Conference Board, and the Society for Human Resource Management (SHRM) published on July 10, 2009, states overall that new hires lack critical thinking and creativity skills.

Supporting this claim is another article entitled, *The Future Workforce is lacking, but can colleges do the job?* Originally published by WFC Resources, November 2006 says, “...the new workforce is not ready. They make the distinction between “applied skills” and basic knowledge skills like reading and mathematics, and it's the applied skills that are sadly lacking. They include critical thinking and problem solving, oral and written communications, teamwork and collaboration, diversity, leadership, creativity and innovation and ethics and social responsibility.”

These skills are more important than ever “because of our increasingly complex knowledge and technology-based global economy. At all educational levels, the applied skills trumped the basic knowledge skills, although high school graduates are ill-prepared for entry-level jobs even in that area. And nearly three-fourths of employers said those young people are lacking in professionalism, work ethic, effective work habits, working productively with others and workload management.” The skills described here are the 21st century skills outlined in the National Education Technology Standards for Students, 2007 (ISTE).

In another study, *Are They Really Ready to Work?* (2006), employers said that the future U.S. workforce is “woefully ill-prepared for the demands of today’s (and tomorrow’s) workforce” and they cited 21st century skills as “very important” to success at work.

Again it is reiterated more recently in the article, *America’s Real Dream Team*, New York Times, March 21, 2010 by Thomas L. Friedman. This article outlines the importance of providing the most qualified teachers and best resources to feed the imaginations of our students.

“This isn’t complicated. In today’s wired world, the most important economic competition is no longer between countries or companies. The most important economic competition is actually between you and your own imagination. Because what your kids imagine, they can now act on farther, faster, and cheaper than ever before — as individuals. Today, just about everything is becoming a commodity, except imagination, except the ability to spark new ideas. If I just have the spark of an idea now, I can get a

designer in Taiwan to design it. I can get a factory in China to produce a prototype. I can get a factory in Vietnam to mass manufacture it. I can use Amazon.com to handle fulfillment. I can use freelancer.com to find someone to do my logo and manage my backroom. And I can do all this at incredibly low prices. The one thing that is not a commodity and never will be is that spark of an idea.”

The application of information technology to the very core of business operations has caused a profound change in the needed skills and talents of New Economy workers (OECD, 2004). Markets in the New Economy are rewarding those who have high educational achievement and technical skill (Task Force on the Future of American Innovation, 2005). The worker of the 21st century must have science and mathematics skills, creativity, information and communication technologies (ICT) skills, and the ability to solve complex problems (Business-Higher Education Forum, 2005).

Oakland Unified School District (OUSD) believes it is imperative that we heed the findings in these reports and address the changing needs of today’s society, workforce, and global economy. OUSD’s technology plan is based on a set of research-based beliefs on how technology can impact student learning and improve teaching practice so that we may better prepare our youth to succeed in the 21st Century. The plan has been designed to support the premise that technology needs to be an appropriate and comprehensive resource that supports and extends curriculum objectives and that technology, information literacy, and 21st Century skills should be integrated into the curriculum and aligned with content area standards in order to improve student achievement, develop lifelong learners, and prepare our children to successfully meet the demands of 21st century society and a global economy.

Technology Planning Process and Stakeholders

The experiences of schools that have successfully integrated technology provide useful guidelines. Zaritsky and Zeisler (1997) have developed planning tables to identify the tasks and responsibilities that are essential to technology planning in schools. The first step in developing a technology plan is convening a planning committee or team to review the school-improvement plan already in place and research the district needs. Planning partners may include administrators, principals, teachers, district office representatives, parents, potential business partners, and a representative from the county office, regional agency, or department of education (Cradler, 1996). The specific organizational structures, committees, and membership may vary among schools that have integrated technology effectively, but the plan should be the result of input from educators and community members with knowledge, experience, and expectations of the role of technology in their school (Massachusetts Software Council, 1994).

How the research will be applied in OUSD:

The Instructional Technology Steering Committee was formed in September 2009 to:

- Review and monitor how technology supports and enhances student learning
- Analyze and review how electronic learning resources and programs affected student achievement data
- Review the previous OUSD Technology Plan and OUSD planning documents
- Conduct research on the current status of technology infrastructure, equipment, and staff, student, and administrative use
- Identify internal and external best practices in educational technology
- Analyze Technology Survey information and other data
- Prepare draft documents for review by OUSD stakeholders including the OUSD Strategy Group,

school site representatives, parents, students, and community partners.

The Instructional Technology Steering Committee was chaired by the Chief Academic Officer (2009-2010). Group members included the Director of Technology Services, the Regional Network Executive Officers, the Director of LCI and the Coordinator of Instructional Technology. Reorganization of the district had now replaced the Chief Academic Officer with a new position, Deputy Superintendent of Instruction, Leadership and Equity in Action

The Steering Committee directed that a Tech Plan Research Group be formed. Group members included representatives from Instructional Technology, Technology Services, Curriculum and Instruction, Research and Assessment, Operations and Support, School Site Representatives from all grade levels, Parents, and Community Representatives.

The Tech Plan Research Group met regularly throughout the 2009-2010 school year, conducted several school site visits, reviewed the 2008 - 2011 Tech Plan and produced a set of recommendations that formed the basis for this document. The 2008 – 2011 Tech Plan was posted on the OUSD web site and a blog was created to solicit public comments, suggestions, and revisions for the creation of a new plan. Online school site and teacher technology use surveys were created and data was collected and analyzed.

In January 2010, a four person writing team from the Instructional Technology unit began drafting this 2011-2014 Technology Plan based on the findings of the Tech Plan Research Group, the technology surveys, public comments and current research.

The drafts of this document were reviewed by the Instructional Technology Steering Committee and distributed to additional stakeholders within OUSD and the community. The 2011-2014 tech plan was posted on the OUSD web site and a blog was created to solicit public comments, suggestions, and revisions. Feedback from stakeholders has been incorporated into the final document.

Technology to Improve Teaching and Learning

Key research-based recommendations include:

- Where are We Going with Technology? (Scholars Collaborative Partnership, 2010)
- Trillings, Bernie. (2009) 21st Century Skills: Learning for Life in Our Times, Jossey & Bass
- Integration of technology into the core curriculum using the 21st Century Skills model (Partnership for 21st Century Skills 2005, North Central Regional Educational Laboratory)
- Equitable access to a common set of tools that support the curriculum and development of 21st Century Skills. (Commission on Technology in Learning, 2003)
- Student acquisition of technological and information literacy skills (Partnership for 21st Century Skills 2005)
- Marzano, Robert J.; Pickering, Debra J.; Pollock, Jane E. (2001) Classroom Instruction That Works: Research-Based Strategies for Increasing Student Achievement, Association for Supervision and Curriculum Development
- Marzano, Robert J.; (2003) What Works in Schools, Translating Research Into Action, Association for Supervision and Curriculum Development, 224 pp
- Darling-Hammond Linda et al, (Feb, 2009) *Professional Learning in the*

Learning Profession: A Status Report on Teacher Development in the United States and Abroad, National Staff Development Council (NSDC)-Stanford University

Research regarding technology integration into the core content areas:

Sternberg, Betty J.; Kaplan, Karen A.; Bork, Jennifer E. *Enhancing Adolescent Literacy Achievement through Integration of Technology in the Classroom* (EJ767777)

Reading Research Quarterly, v42 n3 p416-420 Jul-Sep 2007

In this article, the authors take the state of Connecticut as an example that is expanding its focus by seeking sound research to inform the preparation of adolescents for success in further education and training through integration of technology in the classroom. Recognizing that important research has already been completed in the area of educational technology, this article suggests seven areas for further research that are of interest to state policymakers, focusing particularly on enhancing adolescent literacy achievement through the integration of technology across all content areas.

A quantitative synthesis of 42 research studies found a modest, positive effect of teaching and learning with technology on student outcomes. The authors concluded that these results can be generalized across a wide variety of conditions, as well as across student, school and study characteristics (Waxman, Lin & Michko, 2003). Numerous studies document student understanding of mathematics concepts from using computer-based and computer-assisted software (Cradler et. al, 2002). In a landmark study that analyzed a national database of student test scores, Wenglinsky (1998) found that technology can have a positive effect on students' mathematics scores.

How the research will be applied in OUSD:

Two of the curricular goals in OUSD's Technology plan are to increase student achievement in ELA and Math by identifying and implementing technology applications and identifying or developing electronic learning resources that will support the pedagogy, pacing, instructional strategies, and interventions detailed in OUSD's K-12 ELA and Math Instructional Guides. Teachers will progressively increase their use of the identified technology applications and electronic learning resources and integrate them into their curricula and instruction, first in ELA and Math and then throughout the core content areas.

Students Acquiring Technology and Information Literacy Skills

Beyond the 3 Rs- Voter Attitudes Toward 21st Century Skills

Partnership for 21st Century Skills (2007)

http://www.21stcenturyskills.org/documents/P21_pollreport_singlepg.pdf

A nationwide poll of registered voters reveals that Americans are deeply concerned that the United States is not preparing young people with the skills they need to compete in the global economy. The findings indicate that Americans understand that the economy has changed and that, without skills that reflect today's workforce demands, young people may face tougher challenges earning a living wage and maintaining U.S. competitiveness than previous generations did.

Key Findings:

There is near universal agreement (99 percent) that teaching 21st century skills is important to our country's future economic success. Voters are clear: We are living in a different era that requires new

thinking in our approach to educating our youth.

80 percent of voters say the things students need to learn today are different than 20 years ago.

- Six in 10 voters say our schools are not keeping pace with changing educational needs.
- Almost nine in 10 voters (88 percent) believe 21st century skills can and should be part of the curriculum.

The International Society for Technology in Education (ISTE) released new student standards in June 2007 at NECC in Atlanta, Georgia. The next generation of National Educational Technology Standards for Students (NETS•S) were the result of input and feedback from educators across the U.S. and 22 other countries. Through its National Educational Technology Standards (NETS) Project, ISTE is encouraging educational leaders to provide learning opportunities that produce technology-capable students. The primary goal of the ISTE NETS Project is to enable stakeholders in Pre K-12 education to develop national standards for educational uses of technology that facilitate school improvement in the United States. The NETS Project is developing standards to guide educational leaders in recognizing and addressing the essential conditions for effective use of technology to support Pre K-12 education. <http://cnets.iste.org/index.html>

How the research will be applied in OUSD:

The district will develop or adapt and implement a scope and sequence and curriculum for technology and information literacy skills that are aligned with the 2007 NETS Standards for Students, the Partnership for 21st Century Skills Information and Communication Technology (ICT) Literacy Framework, the Big 6 information literacy model, state and district content standards, and OUSD Instructional Guides. Classroom teachers and library staff will progressively increase implementation of the K-12 Technology and Information Literacy scope and sequence, curriculum, and best practices by incorporating technology-enhanced lessons, activities and/or projects into the core content areas.

Appropriate and Ethical Use and Internet Safety

The Cost of Copyright Confusion for Media Literacy

Fair use confusion threatens media literacy. In too many classrooms across the country, sweaty palms and the fears associated with a call to the principal's office aren't just student afflictions: Educators, especially those who teach media literacy, are experiencing a collective anxiety about what is legal and what is not when using digital images and recordings in their lessons, according to a new report (PDF file) by the American University Center for Social Media. The educational goals of cultivating critical thinking and communication skills are compromised by unnecessary restrictions and a lack of understanding about copyright law. American University Center for Social Media. (2007). *The Cost of Copyright Confusion for Media Literacy*. Washington, DC: Author.

Cyberbullying and online harassment study

One-third (32%) of all teenagers who use the Internet say they have been targets of a range of annoying and potentially menacing online activities - such as receiving threatening messages; having their private emails or text messages forwarded without consent; having an embarrassing picture posted without permission; or having rumors about them spread online. The Pew Internet & American Life Project. (2007). *Cyberbullying and Online Teens*. Washington, DC: Author.

http://www.pewInternet.org/PPF/r/216/report_display.asp

Report: Teach children to maximize their Internet safety Computer networks are most secure when

students are taught about cyber dangers, according to a company's School Safety Index project. Although 95% of districts filter student access, 89% place monitors in view of adults and 81% track Internet activity, just 8% of districts teach students about Internet safety, the survey found. [eSchool News](#) (7/13)

In addition, because it has been proven time and time again, it is imperative that we teach our children how to be the filter instead of relying on costly content filtering programs, “Education is at the heart of ensuring that students remain safe online and understand appropriate netiquette,” said Keith Krueger, CEO of the Consortium for School Networking (CoSN). “Quite simply, we need to make the child the filter, not rely solely on technological protection measures [such as] blocking and filtering. We know that students have always found ways around the best constructed fences created by adults.” From the report published in February 2010, *Too Few Schools Are Teaching Cyber Safety*.

How the research will be applied in OUSD:

The district will evaluate and recommend one or more AB 307 and AB 86 compliant CyberEthics/CyberSafety programs for schools to implement. The district will also incorporate meetings and presentations for parents and community members to increase awareness of CyberEthics/CyberSafety issues.

Appropriate Technology Access For All Students

DeBell, M., and Chapman, C. (2006). *Computer and Internet Use by Students in 2003* (NCES 2006–065). U.S. Department of Education. Washington, DC: National Center for Education Statistics. <http://nces.ed.gov/pubs2006/2006065.pdf>

This report examines the use of computers and the Internet by American children enrolled in nursery school and students in kindergarten through grade 12. The report examines the overall rate of use (that is, the percentage of individuals in the population who are users), the ways in which students use the technologies, where the use occurs (home, school, and other locations), and the relationships of these aspects of computer and Internet use to demographic and socioeconomic characteristics such as students' age and race/ethnicity and their parents' education and family income. One of the more important findings presented in the report is that schools appear to help narrow the disparities between different types of students in terms of computer use. Differences in the rates of computer use are smaller at school than they are at home when considering such characteristics as race/ethnicity, family income, and parental education.

In teaching language learners, using technology has distinct advantages that relate not only to language education but preparing students for today's information society. Computer technologies and the Internet are powerful tools for assisting language teaching because Web technology is a part of today's social fabric, meaning language learners can now learn thorough writing e-mail and conducting online research (Wang, 2005).

Harvard Family Research Project's Complementary Learning Concept – A Linked Network of Learning Educators, policymakers, and families increasingly agree: Schools cannot do it alone. Children need multiple opportunities to learn and grow—at home, in school, and in the community. Complementary learning is a comprehensive strategy for addressing all of these needs and ensuring success for all children and youth. Complementary learning is the idea that a systemic approach—which intentionally integrates both school and non school supports—can better ensure that all children have the skills they need to succeed.

<http://www.gse.harvard.edu/hfrp/projects/complementary-learning.html>

How the research will be applied in OUSD:

The Oakland Unified School District is committed to developing and implementing policies and practices to ensure equitable access to appropriate technology tools and resources for all OUSD students.

Our implementation plan includes the following steps, strategies, and activities:

- 1) Annual reviews and dissemination of the baseline technology package and recommended electronic learning resources.
- 2) Annual needs assessments and assistance to sites to identify gaps in equitable access to technology that can be addressed in their site planning process
- 3) Provide equitable access to technology guidelines and models to school sites
- 4) Actively seeking supplementary funding resources
- 5) Encourage out of school, community based, and home-school partnerships that support equitable access to technology

Student Record Keeping and Assessment

High performing schools view and use technology not as an end in itself but as a means of collecting, analyzing and reporting data to improve curriculum and instruction, and to identify achievement gaps for individual students and groups of students (Rasher, Abromitis & Johnson, 2004, p. 35).

Data literacy—the ability of instructional leaders and teachers to work individually and collectively to examine outcomes-based achievement data, formative assessment measures of student performance, and students' work products, and to develop strategies for improvement based on these data—is now widely recognized as a critical strategy in the academic performance of schools (Fullan, 1999; Haycock, 2001; Johnson, 1996; Love, 2004; Schmoker, 1999; Zalles, 2005). A key concept of data literacy is generating only the data that are needed and making full use of what's collected. Those resources become meaningful to educators only when they are transformed into information, and ultimately into usable or actionable knowledge (Mandinach & Honey, 2005).

How the research will be applied in OUSD:

OUSD will continue to increase implementation by teachers and administrators of the Aeries Browser Interface (ABI) student information system and Edusoft data analysis tools to support the District's student recordkeeping and assessment, to help inform teacher instruction and improve student achievement.

Professional Development

On Feb. 4, 2009, the National Staff Development Council (NSDC) released *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad* written by Linda Darling-Hammond and a team of researchers from the Stanford University School Redesign Network. The report examines what research has revealed about professional learning that improves teachers' practice and student learning. The 2009 report confirms the earlier findings of McREL Insights- Professional Development Analysis (McREL, 2005). Key findings include: Professional development that is short, episodic, and disconnected from practice has little impact. Well-designed PD can improve practice and increase student achievement. *A review of high-quality experimental studies found that among programs offering extended PD (49 hrs on average over 6 to 12 months), student achievement increased by 21 percentile points.* (Yoon et al., 2007) Professional learning opportunities that impact practice are generally: focused on specific curriculum

content and linked to analysis of teaching and student learning; intensive, sustained and continuous over time; supported by coaching, modeling, observation, and feedback; connected to teachers' collaborative work in professional learning communities; and integrated into school and classroom planning around curriculum, instruction, and assessment.

Technology In The Schools: What the Research Shows (2006)

Technology does provide a small, but significant, increase in learning when implemented with fidelity. While this statistic is encouraging, the real value lies to research lies in the identification of those technology interventions that get sufficiently positive results to warrant the investment. Most educators are looking for the value proposition that will significantly advance learning, teaching, and school system efficiencies. Taking advantage of these leverage points requires serious review of specific research studies that specifically address the needs and challenges of specific schools and serious attention paid to leadership development, professional development for teachers, school culture, curricular redesign, and teacher preparation. Metiri Group – commissioned by Cisco System 2006
<http://www.cisco.com/web/strategy/docs/education/TechnologyinSchoolsReport.pdf>

Teachers cannot be expected to learn how to use educational technology in their teaching after a one-time workshop. Teachers need in-depth, sustained assistance not only in the use of the technology but in their efforts to integrate technology into the curriculum (Kanaya & Light,

2005). Teachers also need embedded opportunities for professional learning and collaborating with colleagues in order to overcome the barrier of time and teachers' daily schedules (The National Council of Staff Development, 2001; Kanaya & Light, 2005). Skills training becomes peripheral to alternative forms of ongoing support that addresses a range of issues, including teachers' changing practices and curricula, new technologies and other new resources, and changing assessment practices.

Besides pedagogical support to help students use technology to reach learning goals, teachers also need time to become familiar with available products, software, and online resources. They also need time to discuss technology use with other teachers. "Transforming schools into 21st century learning communities means recognizing that teachers must become members of a growing network of shared expertise (Fulton, Yoon, Lee, 2005)."

Zhao et al conducted a yearlong study (2002) that examined the conditions under which technology innovation can take place in K-12 classrooms. Their findings included that teachers need ongoing guidance and awareness of curricular connections to ensure successful technology and curriculum integration. In 2003, The National Staff Development Council published research by Joyce and Showers showing that "much of the initial learning was lost unless a structured ongoing program followed it." National Educational Technology Plan (2010-Draft) - Seven Major Action Steps and Recommendations
<http://www.ed.gov/sites/default/files/NETP-2010-final-report.pdf>

Goal: Professional educators will be supported individually and in teams by technology that connects them to data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners.

Of the five recommendations from the National Educational Technology Plan (2010), under Teaching and Learning recommendations one and two involve professional development:

- 3.1 Recommendation: Design, develop, and adopt technology-based content, resources, and online learning communities that create opportunities for educators to collaborate for more effective teaching, inspire and attract new people into the profession, and encourage our best educators to continue teaching.

- 3.2 Recommendation: Provide pre-service and in-service educators with preparation and professional learning experiences powered by technology that close the gap between students' and educators' fluencies with technology and promote and enable technology use in ways that improve learning, assessment, and instructional practices.

How the research will be applied in OUSD:

OUSD instructional and technology leaders will receive training on techniques (coaching, modeling) to facilitate the effective use of technology to support teaching and learning. OUSD teachers will be offered multiple opportunities to learn how to use technology to improve their teaching practice and to implement technology-enhanced instruction. These include face-to-face and online district, publisher or vendor provided trainings, workshops, and resources that utilize technology to support ELA and Math instruction, Technology and Information Literacy, and CyberEthics/CyberSafety.

Infrastructure, Hardware, Technical Support and Software

Phelan (2004) stated that access to technology is a major issue in California schools. California ranks 45th in the nation for its ratio of computers to students; there is typically one computer to 14 students in any given California school. This compares to the national rate of one computer for every 10 students. These figures change based on a number of variables. When only multimedia computers are counted in California, the computer to student ratio is one to 37--compared to the national rate of one to 24.

Critical Issue: Using Technology to Improve Student Achievement

North Central Regional Educational Laboratory (NCREL) 2005

<http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te800.htm#researchresult>

Increased use of technology in the school requires a robust technical infrastructure and adequate technical support. If teachers are working with a technology infrastructure that realistically cannot support the work they are trying to do, they will become frustrated. School districts have a responsibility to create not only nominal access to computers and electronic networks but access that is robust enough to support the kinds of use that can make a real difference in the classroom. Teachers also must have access to on-site technical support personnel who are responsible for troubleshooting and assistance after the technology and lessons are in place.

Adapted from a manuscript by Margaret Honey, Katherine McMillan Culp, and Robert Spielvogel, Center for Children and Technology

How the research will be applied in OUSD:

The district is completing a 3-year project, estimated to cost approximately \$30 million dollars to upgrade the network infrastructure to current state-of-the-art. This has eliminated the inequities and will enable every student and adult in OUSD to utilize a rich menu of technologies and have access to reliable on-line resources to increase learning and productivity.

9b. Plans to Extend Curriculum

Describe the district's plans to use technology to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning technologies.

The Oakland USD is actively exploring ways to extend or supplement the district's curriculum and professional development using new innovative teaching methods and technology resources. The

District recognizes that our current network infrastructure is not adequate to support new and emerging technologies and is aggressively moving to upgrade its infrastructure in years one and two of this plan.

The district is implementing the following technology applications, programs, and resources to extend or supplement the curriculum.

CyberHigh and PLATO provide credit recovery and provide students access to courses that may not be available at their local school. OUSD has moved into a small school design in which a highly qualified teacher is not available for all academic courses at all schools.

Revolution Prep is being introduced at all OUSD high schools to provide technology supported general assistance in CAHSEE preparation to all 9th and 10th graders and enhanced support for 11th and 12th graders at risk of not passing the CAHSEE exam.

KDOL, the district's Instructional Television station delivers satellite programming on adult literacy and satellite-delivered instruction from Annenberg and NASA along with a variety of educational programming for community members.

The district is extending existing and exploring new partnerships with museums, universities, science centers, and corporations including the Chabot Science Center with the NASA Simulator, Intel, Pixar, Apple, and Cisco.

Increasing numbers of teachers and schools within the district are using Web 2.0 technologies such as wikis, podcasting, blogs, shared documents, social bookmarks and online tools to access and create content and promote collaborative learning.

Some school sites within the district are currently using teleconferencing for distance learning, mentoring, and professional learning communities and some sites are incorporating streamed video and downloadable video segments; however, the district's limited bandwidth and need for infrastructure upgrades have prevented these technologies from being used on a district-wide scale. As the district's infrastructure is upgraded over the next two years, we will be exploring additional options for distance learning and streamed video content (i.e., United Streaming) to support and extend the district's curriculum.

A growing body of research supports the notion that technology integration leads to higher student learning outcomes. For example, the *National Educational Technology Standards for Students* has described traditional technology use as "isolated and artificial...a reactive response to a teacher-centered, single sense stimulating environment" (ISTE, 2000). In contrast, a project-based learning model that integrates educational technology to support learning presents a more authentic means of teaching and learning science process skills and content (Bednarz, 2000).

Appendix A – Criteria for EETT-Funded Education Technology Plans

1 PLAN DURATION CRITERION	Example of Adequately Addressed	Example of Not Adequately Addressed
The plan should guide the district's use of education technology for the next three to five years. (For a new plan, can include technology plan development in the first year)	The technology plan describes the districts use of education technology for the next three to five years. (For new plan, description of technology plan development in the first year is acceptable). Specific start and end dates are recorded	The plan is less than three years or more than five years in length.
2 STAKEHOLDERS CRITERION Corresponding EETT Requirement(s): 7 and 11 (Appendix D).	Example of Adequately Addressed	Example of Not Adequately Addressed
Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.	The planning team consisted of representatives who will implement the plan. If a variety of stakeholders did not assist with the development of the plan, a description of why they were not involved is included.	Little evidence is included that shows that the district actively sought participation from a variety of stakeholders.
3 CURRICULUM COMPONENT CRITERIA Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).	Example of Adequately Addressed	Example of Not Adequately Addressed
Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.	The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers.	The plan explains technology access in terms of a student-to-computer ratio, but does not explain where access is available, who has access, and when various students and teachers can use

		the technology.
Description of the district's current use of hardware and software to support teaching and learning.	The plan describes the typical frequency and type of use (technology skills/information and literacy integrated into the curriculum).	The plan cites district policy regarding use of technology, but provides no information about its actual use.
Summary of the district's curricular goals that are supported by this tech plan.	The plan summarizes the district's curricular goals that are supported by the plan and referenced in district document(s).	The plan does not summarize district curricular goals.
List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals.	The plan delineates clear goals, measurable objectives, annual benchmarks, and a clear implementation plan for using technology to support the district's curriculum goals and academic content standards to improve and individualize learning.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire technology skills and information literacy skills.	The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to accomplish the goals.
List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students and teachers can distinguish lawful from unlawful uses of copyrighted works,	The plan describes or delineates clear goals outlining how students and teachers will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing and/or downloading.	The plan suggests that students and teachers will be educated in the ethical use of the Internet, but is not specific enough to determine what actions will be taken to

including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism		accomplish the goals.
List of goals and an implementation plan that describe how the district will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid online predators.	The plan describes or delineates clear goals outlining how students and teachers will be educated about Internet safety.	The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals of educating students and teachers about Internet safety.
Description of or goals about the district policy or practices that ensure equitable technology access for all students.	The plan describes the policy or delineates clear goals and measurable objectives about the policy or practices that ensure equitable technology access for all students. The policy or practices clearly support accomplishing the plan's goals.	The plan does not describe policies or goals that result in equitable technology access for all students. Suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to support the district's student record-keeping and assessment efforts.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the

meet individual student academic needs.		goals.
List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve two-way communication between home and school.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.
4 PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA Corresponding EETT Requirement(s): 5 and 12 (Appendix D).	Example of Adequately Addressed	Example of Not Adequately Addressed
Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.	The plan provides a clear summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development. The findings are summarized in the plan by discrete skills that include Commission on Teacher Credentialing (CTC) Standard 9 and 16 proficiencies.	Description of current level of staff expertise is too general or relates only to a limited segment of the district's teachers and administrators in the focus areas or does not relate to the focus areas, i.e., only the fourth grade teachers when grades four to eight are the focus grade levels.
List of clear goals,	The plan delineates clear goals,	The plan speaks

measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (Sections 3d - 3j) of the plan.	measurable objectives, annual benchmarks, and an implementation plan for providing teachers and administrators with sustained, ongoing professional development necessary to reach the Curriculum Component objectives (sections 3d - 3j) of the plan.	only generally of professional development and is not specific enough to ensure that teachers and administrators will have the necessary training to implement the Curriculum Component.
Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.
5 INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA Corresponding EETT Requirement(s): 6 and 12 (Appendix D).	Example of Adequately Addressed	Example of Not Adequately Addressed
Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components (Sections 3 & 4) of the plan.	The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components.	The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail.

Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan.	The plan provides a clear summary and list of the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support the district will need to support the implementation of the district's Curriculum and Professional Development components.	The plan includes a description or list of hardware, infrastructure, and other technology necessary to implement the plan, but there doesn't seem to be any real relationship between the activities in the Curriculum and Professional Development Components and the listed equipment. Future technical support needs have not been addressed or do not relate to the needs of the Curriculum and Professional Development Components.
List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b.	The annual benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when.	The annual benchmarks and timeline are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when.
Describe the process that will be used to monitor Section 5b & the annual benchmarks and timeline of activities including roles and responsibilities.	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.
6 FUNDING AND	Example of Adequately Addressed	Example of Not

BUDGET COMPONENT CRITERIA Corresponding EETT Requirement(s): 7 & 13, (Appendix D)		Adequately Addressed
List established and potential funding sources.	The plan clearly describes resources that are available or could be obtained to implement the plan.	Resources to implement the plan are not clearly identified or are so general as to be useless.
Estimate annual implementation costs for the term of the plan.	Cost estimates are reasonable and address the total cost of ownership, including the costs to implement the curricular, professional development, infrastructure, hardware, technical support, and electronic learning resource needs identified in the plan.	Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed.
Describe the district's replacement policy for obsolete equipment.	Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components.	Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented.
Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.
7 MONITORING AND EVALUATION COMPONENT CRITERIA Corresponding EETT Requirement(s): 11 (Appendix D).	Example of Adequately Addressed	Example of Not Adequately Addressed
Describe the process for evaluating the plan's overall progress and impact on teaching and learning.	The plan describes the process for evaluation using the goals and benchmarks of each component as the indicators of success.	No provision for an evaluation is included in the plan. How success is

		determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing.
Schedule for evaluating the effect of plan implementation.	Evaluation timeline is specific and realistic.	The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan.
Describe the process and frequency of communicating evaluation results to tech plan stakeholders.	The plan describes the process and frequency of communicating evaluation results to tech plan stakeholders.	The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings.
8 EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION Corresponding EETT Requirement(s): 11 (Appendix D).	Example of Adequately Addressed	Example of Not Adequately Addressed
If the district has identified adult literacy providers, describe how the program will be developed in collaboration with them. (If no adult literacy providers are indicated, describe the process used to identify adult literacy providers or potential future outreach	The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to	There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the

efforts.)	identify adult literacy providers or potential future outreach efforts.	use of technology.
9 EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA Corresponding EETT Requirement(s): 4 and 9 (Appendix D).	Example of Adequately Addressed	Not Adequately Addressed
10 Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.	The plan describes the relevant research behind the plan's design for strategies and/or methods selected.	The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing.
11 Describe the district's plans to use technology to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning technologies.	The plan describes the process the district will use to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning opportunities (particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources).	There is no plan to use technology to extend or supplement the district's curriculum offerings.