Crossroads School Instructional Technology Plan
2015-2017

Kelly Middle School

Revised: 8/24/15

850 Howard Ave, Eugene OR, 97404

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Vision Statement:

The mission of Kelly Middle School is to create an inclusive learning environment that challenges, prepares and empowers students to be contributing and compassionate citizens of the world. In order to prepare students for the ever-increasing technology and information-rich 21st century society, the middle school staff will weave instructional technology, inquiry, critical thinking, and global communication into everyday teaching and learning. Students will actively learn technologies and processes, which will enable them to succeed in an increasingly demanding world.

With new tablet and science inquiry hardware in place, our efforts will continue to foster instructional technology - the integration of technology into teaching and learning so that students may receive engaging interactions with subject matter material and enhanced intervention services. Instructional technology is the accessing, synthesizing and presenting of student learning using the appropriate technological tool.

It is the vision of our dedicated staff that all students at Kelly Middle School will participate in developmentally appropriate, standards-based, inquiry-centered and technology-rich content curriculums that develops their natural curiosity, their interest in the subject matter, their ability to apply the use of technology, and communicate their conceptual understanding while relating their learning to real life.

"We, the staff, students, and parents of Kelly Middle School are committed to providing all students with the social and academic skills required to reason, communicate, contribute, and live cooperatively with respect and dignity in a diverse community." We are all committed to preparation for life in an increasingly technological and information-rich society, and to setting goals for future success.

Goals and Objectives:

Kelly Middle School's instructional technology objectives are first and foremost aligned with our three-year Comprehensive Achievement Plan (CAP), and our School Improvement Plan (SIP) instructional goals:

- *All teachers will use instructional strategies and initiatives that are grounded in evidence-based practices, strengthen the core academic program, increase the quality and quantity of learning time, and address the learning needs of all students.*

- *All instructional staff at the school will be engaged in aligning instruction and local assessments to Common Core state standards.*

Kelly's instructional technology objectives also align with our current school-wide and district AVID goals:

- *The KMS staff will build a climate of inquiry by teaching students how to recognize and use questions to understand the world around them.*

Keeping these instructional goals in mind that are aligned to our various improvement and achievement plans, Kelly Middle School is determined to pioneer 21st learning in all classrooms by implementing the latest instructional technologies and strategies.

Instructional Technology Objective 1 – Tablet Technology:

- We are committed to implementing iPad/tablet technology in classrooms that currently do not have desktop or laptop computers. Tablets are currently the pinnacle of mobile technology, and the Kelly staff prefers to offer compact, lightweight high-speed Internet connections so that students can access latest news, articles, and content in the information. In two years, our feeder elementary school students from Howard Elementary will be coming to Kelly already proficient in using iPads as instructional tools, and new cohorts of students from River Road elementary will be proficient as well in the coming years. While our existing iPads are being used for all 6th, 7th and 8th grade students through our science classes, we are planning further implementation of iPads with a 1:1 student emphasis with a sixth grade cohort hopefully in the fall of 2016.
  While iPads and other tablets are cutting edge instructional technologies, they do still have certain limitations as opposed to traditional computers and therefore we will work to balance our existing computer technology with iPad/tablet instructional technology.

o KMS teachers have been researching how to get access to a wide variety of multiple online subscriptions to interest whole classrooms of students, and there are services / apps that will do this, but they are aimed at the mobile platforms (phones, tablets, etc.) as well as traditional laptops.

o The recent heavy focus on non-fiction reading skills that are being pushed right now, KMS teachers are striving to implement inquiry and project based learning in Language Arts and Social Studies. With iPads, students could conduct magazine-based reading *projects (e.g. Smithsonian, Tween Tribune)* where they pick a few periodicals that interest them, and use that as a basis for looking at critical reading, bias, sources, advertisement / audience, et cetera.

o KMS is currently participating in a four year ArtCore grant which integrates art into core curriculum, and the use of iPad and tablet technology will allow the content teachers in collaboration with the grant's ArtCore Weaver to integrate digital arts projects through apps like 'Comic Life,' and 'iMovie', as well as a platform for students to showcase their learning (make their thinking visible) through apps such as 'Explain Everything,' 'Show Me,' etc.

o Implementation of the MYACCESS Writing Program which goes through the writing process beginning with prewriting graphic organizers through publishing on "virtual paper." Through this program, students get instant feedback from teachers, see their conventions mistakes and can correct them. Students have real life grade level models for each score and prompt. Teachers have flexibility on how many revisions a student can submit. Teachers can also differentiate by assigning a project to groups of students, but at a different level, such as 9th grade for talented 7th grade writers. Since students will need to write for the new Smarter Balanced Common Core Assessment, it is crucial that students practice writing in all classes. The addition of virtual keyboards for the iPads in the near future would further help us to meet the writing goal.

Instructional Technology Objective 2 – Digital Science Inquiry Probe-ware and Robotics:

- In science, we are committing to outfitting our 6th, 7th and 8th grade science classrooms with the latest digital sensors and probe-ware for students to conduct innovative, hands-on, real-time science inquiry experiments. Science inquiry work samples are required by the state of Oregon. The cutting-edge digital probe-ware technology will fuel 21st century learning to help fulfill our building student learning objectives, and meet state mandated criteria.

- An innovative inquiry-based lesson would include students working in teams to collect and record temperature and CO_2 levels twice daily in classrooms throughout the school with Vernier LabQuest and probe technology. Students would analyze the environmental data and report the findings to the school administrators, teachers, and district facilities personnel.

- 53% of 8th grade students at Kelly did not pass the Oregon OAKS science test in 2014. Although the district is considering a new science adoption for the 2015-16 school year, it is critical that the Kelly science department acquire hands-on science inquiry technology and supplementary science materials to enrich and engage our students' science understanding. The cutting-edge digital sensors and probe-ware available for data collection will provide students with a deeper understanding of science concepts, and their relationships to math and other subjects, than simply a new hardcover textbook.

- The integration of science, technology, engineering and mathematics (STEM) is also currently at the forefront of national, state, and 4J district educational initiatives to improve students' academic success in math and science. The math and science teachers at Kelly are also committed to creating engaging STEM classroom experiences for all the 6th, 7th and 8th grade students. It is our intent to provide all of our students with engaging and innovative STEM projects during our core science classes, and future planned engineering elective classes. These include constructing and programming Lego Mindstorm robots that perform a variety of tasks involving collecting data with digital sensors and other probe-ware. Robots will also be remote controlled and their sensors manipulated via iPad technology. The activities will be designed to progress in complexity between grade levels to further challenge and enrich the students' STEM experiences.

- As a result of these recommended science inquiry instructional technologies, 80% of all Kelly students will demonstrate academic growth through formative and summative student assessments (short responses, lab work, presentations, quizzes and tests). These assessments will also be technology-based in nature so students can show their proficiency in using the technology.

- 100% of students will write about their inquiry experiences and lab work in pre and post activities in their science interactive notebooks, a best practice being utilized as part of our AVID focus.

- Kelly teachers and staff will continue to use instructional technology as a way to unite many of the project-based learning opportunities that our school is already doing.

Instructional Technology Objective 3 – Digital Media Center:

By acquiring new iPad/tablet technology with apps such as iMovie, iPhoto, Comic Life, etc., the Kelly staff will be more equipped to create a digital media/film production studio. In addition to our existing music and sound equipment, and later hopefully acquired studio-quality lights and tripods, students will have the opportunity to create high-quality production videos and presentations.

Students will also be able to create tutorials for peers that would be available on the Kelly website, or on Vimeo. For example, the use of the iPad application "Explain Everything" would allow students to create mathematics tutorials in the vein of "Khan Academy" videos that would be uploaded to the Internet for access by other Kelly students and parents.

Students could also create and maintain videos showcasing the Positive Behavior Incentive Supports (PBIS) expectations throughout the school. These videos about how students should properly conduct themselves in various areas throughout the school could be accessed online by new students and parents enrolling at Kelly, or viewed on a school-made DVD, as well as showcased on the large TV monitor near the school's front entrance.

Assessment and Accountability of Student Achievement:

The aforementioned program objectives will be evaluated through quantitative and qualitative methods, including:

- Formative and summative student assessments in the form of short responses, lab work, quizzes and tests.

- Teacher records of how many times the instructional technology was used in each curriculum topic.

- Teacher qualitative feedback on the ease of use, implementation, and any challenges.

- Grade-level team meetings to share qualitative feedback, results of quantitative tests, and to address any implementation challenges.

- Periodic feedback provided to middle school administrators during Instructional Strategies Leadership Team (ISLT) meetings, on Google Documents pertaining to best practices of teaching and building-wide instructional focuses (AVID, VTS, etc).

- Project reports that summarize and document project successes and challenges.

- Student reports prepared using Google Documents, which will present the data collected by the handheld sensors and probes. These reports will be shared online and scrutinized by other middle school classes studying similar topics and content standards.

- Student creation of a class project website that demonstrates subject mastery. This will be done using the website program Word Press, which is the program now being used for the newly updated Kelly Website.

- Student creation of short videos and performances that will be available online (with parent permission) to demonstrate concepts and to remotely tutor peers.

- 70% of 8th grade students will achieve a proficient score on the OAKS state assessment in 2015 (Smarter Balanced will test science content this year).

Technology Resources:

TECHNOLOGY CURRENTLY IN PLACE AT KMS

Please see the attached spreadsheet of classroom technology already implemented at Kelly Middle School.

Lego Mindstorm Robotics:

Lego Mindstorm Robotic Kits	15
DI WIFI chips	15
iNXT Apps	15
Vernier NXT adapters	15
Lego Mindstorm software site license	1

Vernier Probeware Technology:

ProScope Micro Mobile (iPad)	20
Vernier soil moisture sensor	1
Vernier UVA sensor	19
Vernier Motion Sensor Clamp	4
Vernier Labquest lanyards	40
Bio Chamber	8
Vernier Labquest 2	32
Vernier Stainless Steel Temp. Probe	20
Vernier UVB sensor	19
Vernier CO2 Gas Sensor	12
O2 Gas Sensor	12
Vernier Light Sensor	10
Vernier Go Motion Sensor	13
Vernier pH sensor	10
Vernier Soil Moisture Sensor	10
Vernier Voltage Probe	10
Vernier Photogate	8
Vernier Magnetic Field Sensor	10
Vernier Turbitity Sensor	10
Vernier Go! USB Link adapter	6
Humidity Sensor	8
Dual range force sensor	8
Heart rate sensor	8
Dissolved O2 sensor	7
Charging base station	2

Name	Room	Usable	Capacity	Type	OS	
KELLY TECHNOLOGY OVERVIEW						
LABS						
Room 17 Lab	17	41	42	Hp OmniPro 110	Windows 7	
Library Lab	Lib	35	35	MacMini	OS 10.6	
COWS						
Cow A (Montgomery)	31	36	36	MacBook Air	OS 10.8.5	
Cow B (Young)	21	36	36	MacBook Air	OS 10.8.5	
Cow E (Whitlock)	14	36	36	MacBook Air	OS 10.10.3	
Room 3 COW (Cash)	3	30	32	MacBook	OS 10.6	
KellyCOW (Science Wing)	Science	27	32	MacBook	OS 10.6	
Room 11 COW (Birmingham)	11	36	32	MacBook	OS 10.6	
Room 22 COW (Dean)	22	32	32	MacBook	OS 10.6	
Room 29 COW (Mora)	29	32	32	MacBook	OS 10.6	
Room 8 COW (Miller)	8	30	32	MacBook	OS 10.6	
Rm. 24 Cow	Tech Rm.	12	32	Varies	Varies	This is a spare cart that is currently housing some older teacher laptops.
Other Computers						
Room 13 (Nickerson)	13	6		Hp	Windows 7	
Room 2	2	(Title) 6		Hp	Windows 7	
Room 10 (Wodke)	10	5		MacBook	OS 10.6	
Office	Front Office	3	n/a	MacBook	OS 10.6	Three laptops available for sub/student teacher checkout
iPad Carts						
Cart D	Science Wing	36	40	iPads	iOS 8.2	
Cart C	Science Wing	26	40	iPads	iOS 8.2	

iPad Tablet Technology:	QTY	Timeline (Month&Year)	Potential Funding Source(s)	Professional Development (PD)
				Septemeber 2015 - Training of project leader in effective use of technology (at school site and online), within two weeks of acquiring technology.
4 carts of Apple iPad Airs - (for Student use all grade levels and one cart science - (35) x 4	140	42248	Crossroads Bond Project Round 4	September 2015 - Training of additional teachers by project leader (at school site), within one month of acquiring technology.
iPad protective case	140	42248	Crossroads Bond Project Round 4	October 2015 - Ongoing teacher team meetings to effectively integrate project technology into class lessons.
		Ongoing	Building / 4j District	Ongoing - Project leader teacher and teachers attend ongoing district offered PD as well as local and potential out-of-state PD sessions.
MY ACCESS Writing Program	140	42292	KMS Funds	KMS Assistant Principal trained extensively in iPad implementation, Vernier Technology, and Lego Robotics listed below to provide PD opportunities to staff on site.
			Grants / Fundraisers	
iPad APPS:			Potential Grants listed below apply to all APPS:	
			KMS River Walk Fundraiser	Grants and fundraisers listed here will began in September 2014 to start process of acquiring new instructional technology
			Cooper's Walk for Inst. Technology	As instructional technology becomes available, the PD timeline (above) will be adjusted to allow PD to occur earlier.
Adobe Reader	140	42262	2015 Kids In Need Teacher Grants Application - Fred Meyer	
Best Barcode Scanner	140	42262	2015 Kids In Need Teacher Grants Application - Via Credit Union	
Book Creator	140	42262	SELCO Community Credit Union Teacher Grants	
Comic Life	140	42262	Eugene Education Foundation (EEF) Grants	September 2015 - Pre-assessment of student skills in math and science followed by implemetation of iPads in small group and whole class instruction.
Common Core	140	42262	KMS Direct Drive Fundraiser	
Dragon Dictation	140	42262	Other local community grants	
Dropbox	140	42262	IN 2014-2015 = Received $8,000 approx. for science probeware technology from grants	
Edmodo	140	42262		
Evernote	140	42262		November 2015 - Students take CCSS progress monitoring test and teachers measure student growth. Continued intervention with App technology.
Explain Everything	140	42262		
GarageBand	140	42262		
Google Drive	140	42262		
iBooks	140	42262		

iMovie	140	42262		
iPhoto	140	42262		January 2016 - Students begin to create presentations in core academic classes based on skills learned with iPad applications.
Keynote	140	42262		
NGSS	35	42262		
Notability	140	42262		
Numbers	140	42262		
Pages	140	42262		
Penultimate	140	42262		
Show Me	140	42262		May 2016 - Students take Smarter Balanced CCSS Test and teachers measure student growth.
Quakewatch - Latest Earthquake Info	35	42262		
Cell and Cell Structure	35	42262		
Volcanos of the World	35	42262		
Middle School Math	140	42262		
Adding Integers and Subtracting Integers	140	42262		
Mathination - Equation Solver	140	42262		June 2016 - Students present their presentations created on and using the iPads.
Mathboard	140	42262		
Lego Mindstorm Robotics:			Ongoing available Oregon Department of Education (ODE) Grants	We are actively working on grant-writing to receive digital science-inquiry probeware and other sensors, as well as Lego Robotic kits.
Lego Mindstorm Robotic Kits	15	41959	NSTA Awards Grants	As we hopefully achieve this new technology, our PD and implementation timeline will be adjusted to reflect the new instructional technology acquistions.
DI WIFI chips	15	41959	Toshiba America Foundation Grants	
iNXT Apps	15	41959	Potential Funding Source(s)	
Vernier NXT adapters	15	41959		
Lego Mindstorm software site license	1	41959	Crossroads Bond Project Round 4	September 2016 - Pre-assessment of student skills in math and science.
			Crossroads Bond Project Round 4	
			Building / 4j District	
			KMS Funds	
Vernier Probeware Technology				

Vernier Labquest 2	32	42324	Grants / Fundraisers	November 2016 - Training of project leader in effective use of technology at school site within two weeks of acquiring technology.
ProScope Micro Mobile (iPad)	20	41958	Potential Grants listed below apply to all APPS:	November 2016 - Students take CCSS progress monitoring test and teachers measure student growth. Continued intervention with App technology.
Vernier soil moisture sensor	1	41959	KMS River Walk Fundraiser	
Vernier UVA sensor	19	41959	Cooper's Walk for Inst. Technology	
Vernier Motion Sensor Clamp	4	41959	2016 Kids In Need Teacher Grants Application - Fred Meyer	
Vernier Labquest lanyards	40	41959	2016 Kids In Need Teacher Grants Application - Via Credit Union	
Bio Chamber	8	41959	SELCO Community Credit Union Teacher Grants	March 2017 - Students begin to create presentations in core academic classes based on skills learned with Vernier, Lego Robotics and iPad technology.
Vernier Stainless Steel Temp. Probe	10	41959	Eugene Education Foundation (EEF) Grants	
Vernier UVB sensor	19	41959	KMS Direct Drive Fundraiser	
Vernier CO2 Gas Sensor	12	41959	Other local community grants	
O2 Gas Sensor	12	41959	IN 2014-2015 = Received $8,000 approx. for science probeware technology from grants	
Vernier Light Sensor	10	41959		May 2017 - Students take Smarter Balanced CCSS Test and teachers measure student growth in Science (if Science is measured by Smarter Balanced in 2016).
Vernier Go Motion Sensor	13	41959		
Vernier pH sensor	10	41959		
Vernier Soil Moisture Sensor	10	41959		
Vernier Voltage Probe	20	41959		
Vernier Photogate	8	41959		
Vernier Magnetic Field Sensor	10	41959		
Vernier Turbitity Sensor	10	41959		June 2017 - Students present their science presentations incorporating Vernier technology, Lego robotocs and iPads.
Vernier Go! USB Link adapter	6	41959		June 2017 - Students showcase math projects / math videos / making their math learning visible (online math channel).
Humidity Sensor	8	41959		
Dual range force sensor	8	41959		
Heart rate sensor	8	41959		
Dissolved O2 sensor	7	41959		
Charging base station	2	41959		