COMPUTER TECHNOLOGY AND THE BEDFORD PUBLIC SCHOOLS

HOW STUDENTS USE, LEARN WITH, AND ARE SERVED BY, DIGITAL TECHNOLOGY

December 30, 2014

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PURPOSE

This report provides a comprehensive description of the critical role that digital technology plays in the Bedford Public Schools, both operationally and as a primary vehicle for teaching and learning. These data and their accompanying explanations demonstrate that we have arrived at a watershed period, a phenomenon in no means specific to Bedford, whereby education has become inseparable from the technology of the times, and that a well-planned ongoing investment in our infrastructure, devices and software is a necessity.

Wonderful work is being done every day by students and teachers at all four of Bedford's schools using teaching and learning tools that have been acquired through board and town approved capital budgets and operating budgets, supplemented by grants from organizations such as the Bedford Education Foundation. The lion's share of the hardware, however, has been purchased via building projects, and according to identifiable life cycles and on-the-ground assessment, much of its replacement is well overdue. When computers don't work, teachers' plans are directly impacted and valuable student learning time is wasted.

We hope that this report will help the interested reader understand how computer technologies fit into the Bedford Public Schools' educational mission and philosophy and how vital they have become to our students' intellectual growth and academic success.

COMPUTER TECHNOLOGY AND THE SCHOOLS
Bedford Public Schools
December 23, 2014

OVERVIEW

INTRODUCTION

Since digital technology has become the principal means by which organizations access, store and share information and ideas, school systems have become entirely dependent upon it. While it promises to yield certain modest cost-saving or time-saving efficiencies, when it comes to teaching and learning, cost savings are not the principal impetus for its inclusion. And while we should also see improvements in the standardized test scores of some of our struggling students, as technology enables increasing instructional differentiation, this too is not its primary educational role. Technology's greatest promise lies in its capacity for deepening and extending student learning, in large measure by making the learning process increasingly student-centered. And, as it is the principal medium for learning, working, communicating, creating and playing in our fast changing world, schools are responsible for preparing students to use it effectively and responsibly.

GENERAL OPERATIONS AND COMMUNICATION

Each teacher, administrator and secretary has a PC, or in a few cases, a laptop, with which he or she communicates, using **First Class email,** with colleagues, parents and increasingly, with students. The schools are essentially paperless when it comes to memos and other forms of adult to adult communication. Increasingly, teachers develop their own **web pages** to communicate with students and parents. Increasingly as well, **blogs and various forms of social media** are used to increase communication with families and community.   Emergency and other timely information is also communicated via computer directed phone links through our Alert Now system.

Our Student Information System, **Aspen**, is all digital, and as the repository of student assessment data, and state-assigned student and teacher identification information (SASIDS and MEPIDS), it is the database used for mandated communications with the Department of Elementary and Secondary Education.

TEACHING AND LEARNING

Planning, Assessing, Grading and Making Use of Data

All teachers develop curriculum units and plan lessons using computers. All curricula and lessons are stored on computers. Teachers grade online. At the middle and high school level, parents access grade information online. The new generation of standardized tests is computerized.

All teachers belong to **data teams** that meet on a regular basis to collect and analyze student work and achievement data based upon common assessments.   They use computers and spreadsheets to collate and sort data, examine patterns of achievement and identify reasons for

low performance so that they can modify instruction and share new strategies to address the gaps. The schools also have school-wide data teams that, along with various central administration efforts, analyze larger data sets to identify learning gaps.

Instruction and "Minds-on" Learning

21st century skills, such as creativity, communication, collaboration, problem-solving, and critical thinking depend upon interactive learning. Developing these abilities, learned in conjunction with course content and discipline-specific skills, comprise the core learning goals of the Bedford Public Schools. Hands-on and "minds-on" learning, where students work through problems, replaces passive listening where teacher "telling" once predominated. Developing students' ability to think analytically and creatively and to become self-directed learners depends entirely upon this instructional paradigm shift. While minds-on or student-centered learning does not depend upon digital technology, it significantly deepens and extends this type of learning when used appropriately when put into students' hands. It also provides access to a wider range of students who find these technologies highly engaging.

Broadening Access and Knowledge Demonstration. Instructional technology provides both students and teachers with **multiple ways to demonstrate knowledge** as they interact with content, create and present information in various formats, including text, image, sound, and video. This has added value at a time when we have come to recognize what Gardner refers to as **multiple intelligences** (visual-spatial, bodily-kinesthetic, interpersonal, musical, intrapersonal, linguistic, and logical-mathematical). In addition to building on students' unique strengths, teaching through **multiple modalities** also allows more students to more effectively access the curriculum, as some students are more adept visual, auditory or kinesthetic learners. Using computers, particularly handheld devices, in small groups enables individual learners to move at their own pace to get additional practice with skills or concepts that they find difficult to master.

Brain-based Research. We know from a variety of sources (educational practice, brain research, educational theory) that learning and long term memory are enhanced by active engagement with material. As a pattern discerner, when the brain makes connections and actively manipulates data, new neurological connections are created and learning is pushed into long-term memory. This is why we say that we *develop thinking through content*, and the best way to learn content is to have students *think about it*. Instructional technology does not facilitate this automatically, and in fact, its misuse can exacerbate a kind of "mindlessness" that runs counter to reflection and deep learning. So helping students to learn to use technology "mindfully" is a responsibility schools must now assume. Used correctly, it provides students with rich opportunities for research, for problem-solving, and for presenting their learning in creative ways.

Transforming Instruction: Metacognition and Portfolios Powerfully, it provides a vehicle that analogue systems cannot practically compete with, for developing students' **metacognition,** the awareness and understanding of one's own learning processes (planning, comprehension, etc.). As we are beginning to do in several places, students are collecting their work through Evernote and other software programs, and they are analyzing and commenting upon it on a regular basis. When a teacher asks students to select their best example of learning and to explain why they chose it, or when students have to compare a drawing to one done several weeks later or review their writing over a period of time, several important things happen: one, they more effectively

remember important information and concepts; two, they deepen their learning of the skills or content at hand; three, they develop an appreciation for their work product and process (as opposed to the automatic mindlessness that we so often associate with homework), and finally, they develop an understanding of their own learning that creates ever greater independence. These portfolios will eventually be developed cumulatively over the span of the students' schooling.   They also provide **important opportunities for assessment** that regular paper and pencil tests cannot achieve.   <u>Assessing higher order thinking, the ability to synthesize information, apply or transfer skills, and creatively problem solve</u> increasingly require **project-based or performance-based assessments**. Accumulating and storing this student work data is only possible using digital technologies.

<u>Transforming Instruction: More Regular Checking for Understanding</u>. Teachers are changing the way they check for understanding in ways that ensure much greater success for all learners. Historically, teachers would ask the class if they understood a concept or they would call on a student whose hand was raised, and after the correct information was surfaced, they would move on. Many teachers have long since recognized that this type of approach does not reveal the whole class's understanding, nor does it require all students to think about the question at hand. While many teachers have used non-digital methods, like individual white boards, that engage all students' thinking and reveals all students' understanding, the new technology offers powerful new ways to do the same. Particularly when each class member has access to a device, we are seeing a more thorough integration of just-in-time assessment and other forms of immediate feedback. This feedback is not only useful to teachers, who can then adjust their instruction, but immediately to students as well, as it engages their thinking and informs them of how well they are understanding the material. Programs like Socrative immediately turn the students' answers into graphs that the teacher can project onto the Smartboard to serve as a basis for further discussion of the material.

<u>Broadening horizons</u>. In an increasingly globalized environment, web-based technology allows for whole new learning experiences as classes communicate with "sister or brother" classes in other countries, and as individual students develop learning and social networks that transcend traditional boundaries.

<u>Assistive Technology</u>.   Finally, some of our students require various forms of assistive technology, like text to speech software.

The Promise and the Challenge of Meeting Students Where They Are
Most students are immersed in digital technology in one form or another. Three year olds have tablets, and despite various market fluctuations, with competition between Androids and iPads, children's tablet use is on the rise. Witness Amazon, ToysRUs, Kmart kids' tablet creations, statistics coming out of the UK with one in three children owning a tablet, and the increasing use of e-readers among all ages. While their ubiquity certainly presents challenges in terms of distractibility and older students' widely held but erroneous belief that they can multitask effectively, i.e., engage in school work while simultaneously social networking, their promise for capturing and channeling students' imaginations and technological intelligence is too great to ignore.

Equally challenging is the schools' ability to sufficiently maintain its technology in order to facilitate the students' sharing of their work. Students tend to have newer versions of hardware and software and when they create work products at home (research papers, documentary videos, power point presentations) and bring them to school, teachers frequently cannot view or display them. This speaks clearly to the need to ensure the currency of our infrastructure, our devices and our software.

Most important, using digital technology enables educators to harness students' experiences and "speak their language" in ways that are both engaging and motivating. Teachers find that students often persist longer and even voluntarily practice exercises at home that are traditionally found to be boring and uninteresting. To fail to do so is to create a false dichotomy between the media for formal, structured learning and the media with which students are already learning, either deliberately or unconsciously in the rest of their lives.

Moving Beyond Consumption

Students are consumers of technology, and while many are exceptionally adept at certain kinds of applications like gaming or social networking, and many are no so consciously engaged in new forms of communication and digital creation, most are neither well schooled in technology's more academic, artistic or occupational uses, nor are they particularly reflective about how they use it, either as a source of information, communication or creation. It falls to the schools to meet students where they are and move them into a more reflective and discerning relationship with technology, and to equip them with the knowledge and the skills to use it productively. While, for example, many learning games are increasingly available and "teach" valuable knowledge and skills, we want our students learn how to code so that they will be able to create games themselves. We are beginning to construct a K-12 programming curriculum so that all students can understand coding as a frame of mind, as an approach to problem solving and as a kind of language. Many students are learning how to manipulate technology, how to solve technological puzzles, how to make things work. Harnessing those skills and applying them in our academic context is not only engaging for students but provides an avenue for developing the higher order thinking skills that form the core of our educational mission.

DISTRICT-WIDE TECHNOLOGY HARDWARE, SOFTWARE AND THEIR USES

EPSON BRIGHTLINK PROJECTORS: These projectors and interactive white boards are in every regular classroom at BHS, JGMS and Lane, and by next year, will be in every regular classroom at Davis. *As a cost savings measure, Epsons will replace SMARTBoards when SMARTBoards have reached their life span. Epson interactive projectors are a newer technology; we are basing the life span of these devices on the industry standard of the life span of the SMARTBoard.*
http://www.epson.com/alf_upload/pdfs/projectors/brochure_595wi.pdf

These projectors are used by teachers and students in a variety of ways. First, teachers project their lesson information, often in Power Point format, to provide clear visuals to accompany auditory processing. Slides, imbedded video, etc. as well as animated presentations bring

everything from cellular mitosis to the Civil War to life in vivid visualizations. This is helpful to the whole class, but is particularly important for non-auditory learners.

Students use the same projection capacity to display their learning and share it with the class, in the form of Power Points, documentary videos, etc. Both students and teachers use document cameras in conjunction with SmartBoards and Epson Projectors to display and critique student work.

As interactive platforms, they enable elementary students to solve math problems, manipulate data, and engage in a variety of learning programs such as:
- Google Earth, Google Maps and Neighborhood Map Machine for geography and social studies,
- Google SketchUp, interactive math programs consisting of virtual manipulatives for mathematics
- Socrative for checking for understanding and class discussion,
- Lego WeDo, NASA, Exploratorium, National Geographic for Kids for science, technology and programming,
- Stop Motion, Corefx, Tabletop Jr., Inspire Data, Kidspiration, Inspiration for writing and other forms of creative expression

Many of these are also on other devices like PCs and iPads, but the SmartBoards/Epson Brightlinks allow for whole class or group interactive learning (*See accompanying spreadsheet for software program descriptions).* Finally, the Interactive Projectors remember the information inscribed on the white boards, so students who are out for extended times can access lecture notes, etc. This is a capability that is unevenly used.

DESKTOPS: Desktops are used by teachers for: communicating with each other, with students and with families; planning; curriculum development; classroom instruction; student information (grading, etc) purposes; and instruction. Administrators use desktops for communicating, planning, student information purposes and compliance reporting.

Students use desktops in computer labs for a wide range of learning activities (research, learning programs, self-paced learning programs, programming, design, composing (music, written work, art work), building personal learning networks, preparing presentations, etc.), some of which can be done on handheld devices, and some of which require greater memory capacity, etc.

LAPTOPS: Laptops are generally used by central office administrators and administrators in each of the schools. Laptop carts are used for instruction for a variety of purposes including student research, writing and editing, presentation creation, programming, lab work, etc.

iPADs: iPad use varies from school to school and is detailed below.

LASER PRINTERS: We are increasing the number of laser printers as we phase out the deskjet printers to save costs on ink cartridges. ** As a cost savings measure, laser printers will phase out the use of deskjet printers.*

SOFTWARE
Below is a list of software that is installed <u>on all PCs in each of the schools</u>. Additional software may be installed as well, samples of which are described below. That information can be found on the school based software tabs of this worksheet.

BHS	JGMS	Lane	Davis
Acrobat Reader X	Acrobat Reader X	Acrobat Reader X	Acrobat Reader X
Adobe CS3	Audacity w/LAME decoder	algodoo	Appleworks 6
Audacity w/LAME decoder	Avervision	Appleworks 6	Audacity w/LAME decoder
Avervision	Canon Camera 50.0 plugin	Audacity w/LAME decoder	Canon Camera 50.0 plugin
Canon Camera 50.0 plugin	DV Camera driver	Avervision	DV Camera driver
DV Camera driver	Evernote Plus	Canon Camera 50.0 plugin	Evernote Plus
Evernote Plus	FirstClass email	DV Camera driver	FirstClass email
FirstClass email	Flash for IE & Firefox	Evernote Plus	Flash for IE & Firefox
Flash for IE & Firefox	Flip camera Driver - Flipshare	FirstClass email	Flip camera Driver - Flipshare
Flip camera Driver - Flipshare	Freemake	Flash for IE & Firefox	Freemake
Freemake	Geosketchpad 5	Flip camera Driver - Flipshare	Geosketchpad 5
Geosketchpad 5	Gimp 2.0	Freemake	Gimp 2.0
Gimp 2.0	Google Chrome	Geosketchpad 5	Google Chrome
Google Chrome	Google Earth	Gimp 2.0	Google Earth
Google Earth	Google Sketchup	Google Chrome	Google Sketchup
Google Sketchup	inkscape	Google Earth	inkscape
inkscape	iTunes	Google Sketchup	iTunes
iTunes	Java	inkscape	Java
Java	Jing	iTunes	Jing
Jing	Kurzweil 3000 client	Java	Mozilla Firefox
Kurzweil 3000 client	Mozilla Firefox	Jing	MS Office 2000 & Publisher - teachers
Mozilla Firefox	MS Office 2000 & Publisher 2001	Kurzweil 3000 client	Norton Antivirus
MS Office 2000 & Publisher 2000	Norton Antivirus	Mozilla Firefox	NVU
Norton Antivirus	NVU	MS Office 2000 & Publisher 2002	Office 2007 & Works convert. packs
NVU	Office 2007 & Works convert. packs	Norton Antivirus	Office SP1 and SP3 service packs
Office 2007 & Works convert. packs	Office SP1 and SP3 service packs	NVU	Open Office
Office SP1 and SP3 service packs	Open Office	Office 2007 & Works convert. packs	Photostory 3
Open Office	Photostory 3	Office SP1 and SP3 service packs	Phun
Photostory 3	Phun	Open Office	Quicktime

Phun	Quicktime	Photostory 3	Real Player
Quicktime	Real Player	Phun	Roxio MyDVD
Real Player	Roxio MyDVD	Quicktime	Scratch
Roxio MyDVD	Scratch	Real Player	Shockwave
Scratch	Shockwave	Roxio MyDVD	Skype
Shockwave	Skype	Scratch	Smartboard
Skype	Smartboard/Smart Response	Shockwave	Storybook
Smartboard	Storybook	Skype	Windows Media Player
Storybook	Windows Media Player	Smartboard	Stationery Studio
Windows Media Player	Inspiration 7.5	Storybook	CoreFX
Inspiration 8	Studio MX	Windows Media Player	Graph Club 1.5
InspireData 1.5		Motic Play 1.2	Read Natually
		Motic Educator	Motic Play 1.2
		Inspiration 6	Motic Educator
		Tessellation	Kid Pix Deluxe
		TimeLiner 5.0	

SCHOOL- SPECIFIC HARDWARE, ADDITIONAL SOFTWARE AND USAGE

BEDFORD HIGH SCHOOL

DESKTOP DISTRIBUTION AT BHS

High School	Desktops	Total Number: 246
A 201D	desktops	3
Art Lab	desktops	15
Drafting Lab	desktops	11
Foreign Language Lab	desktops	30
H205 Lab	desktops	30
Library	desktops	36
Music Lab	desktops	21
Replacement Machines (District)	desktops	30
Skill Center	desktops	2
Yearbook Room	desktops	8
Total number of desktops assigned to faculty and administrators:		**121**
Total number of desktops available for student use:		**95**
Total number of deskops unassigned - used as replacement machines throughout the District:		**30**

BHS Computer Labs and Stations Additional Software: In addition to all of the above software, certain labs have additional software added. (See spreadsheet for complete listing.)
- General lab: E.g., Finale Notepadd 2008, Logger Lite and LabQuest, Logger Pro 3.8.4, Nutritional Software Library
- Library: E.g., iTALC
- Yearbook Rm: Basic Template
- Business lab and computer science lab: Automated Accounting 8,0, Command Prompt, FFr-Keymap, Finale NotePad2002, IrfranView
- Drafting and technology lab: Cadsoft Envisioneer Construction Suite 5, Autodesk Design Review 2009, Turbo Floor Plan Home Designer, 7500 Home Plans, Lego MindStorm NXT 2.1, CREO 2.0, 3D Cube
- Music lab: Finale Notepad 2006, 2008, HomeStudio 2004, Mixercraft 5, Teaching with Reason 3.4.0, Synchroneyes 7.0
- Art lab: EMC Retrospect Express HD, SanDisk Transfer Mate, ABBYY Finereader 6.0 Sprint, Honestech Claymation Studio 2.0, Adobe CS3, After Effect
- Foreign Language lab: Sony Soloist 7.4.5, Grammar Word Tutor (Fr and Sp)
- Science teachers work station: Bluetooth for Smarth Slate Tablet, Boardworks, ClocX, ExamView Pro, Logger Pro, TestBuildere, LabQuest

- Math teachers work station: Exam View Generator, HS Activity Generator, LaxTXT, Mathtype6.9, McDougalLittle Test Generator, SmartNotebook with Math Tools, Texworks
- Guidance Counselors Work Station: Naviance ducofide virtual printer
- SPED administrators work station: WIAT-III Scoring, BASC-II, WISC-IV, PsychCorpCenter, Conners 3
- Administrators: KVS, CS3 Master Suite, Office 2007
- Computer Dept: Citrix XenCenter, FileMaker Pro 5, KVS, PCAnywhere, Symatec Ghost

Desktop Student Usage

The general lab, library computers and foreign language lab are always fully scheduled and are consistently used for research, work creation (student presentations, videos, etc.) and subject-specific programs. The subject-specific labs are course-connected, and so certain courses like Piano or graphic art depend entirely upon the lab technology.

LAPTOPS: Laptops are used in **English and Social Studies** classrooms for research, for extended writing exercises, and for work production (Powerpoints, Videos, etc), and in **Science classes**, for experiments and data analysis conjunction with various probes (e.g., for measuring temperature, force, motion, etc.), for experiments. Some examples of subject-specific laptop software in science includes: ActivePad, Dashboard, Interactive Physics 5, LabQuest Emulator, Logger Pro, Motic Images Plus, LegoMindstorm NXT. Other departments use LT's as well.

High School	Laptops	Total Number: 158
Art Lab	laptops	2
Faculty/Admin Laptops	laptops	31
laptop carts (6)	laptops	72
Replacement Machines (District)	laptops	3
Science Laptops	laptops	48
Total number of laptops assigned to faculty and administrators:		**31**
Total number of laptops available for student use:		**127**
Total number of laptops unassigned - used as replacement machines throughout the District:		**3**

THE BHS ONE TO ONE IPAD PROGRAM

All students and teachers at BHS have an iPad. iPads are leased and are provided with a breakage-resistant case and the applications listed below. All teachers are expected to incorporate iPads in at least one of four ways:
- to create and/or communicate content;
- for higher order thinking;
- for checking for understanding in interactive ways;
- and for collaboration.

iPad App Name	Cost
Adobe Ideas	Free - new app (Art)
Adobe Photoshop Express	Free
Animoto	Free
AP Exam Prep Environmental Science	$5.49
Audioboo	Free
Blogger	Free
Breathe 2 Relax	Free - new app (Guidance)
Brushes 3	Free - new app (Art)
Calculator Pro	Free
Chrome	Free
Clinometer HD	Free - new app (Science)
CloudOn	Free
Desmos	Free - new app (Math)
Djembe	Free - new app (Music)
Dragon Dictation	Free
Drawcast	Free
Dropbox	Free
Easybib	Free
eClicker Audience	Free
eClicker Presenter (teachers only)	$7.49
edmodo	Free
Educreations	Free
EMD PTE	Free
Evernote	Free
Find My iPhone	Free
FirstClass	Free
Flashcardlet	Free
Follett Digital Reader (a.k.a. CafeScribe)	Free
GarageBand*	Free
Geogebra	Free - new app (Math)
GOODREADER	Free (Dix)
Google Docs	Free
Google Drive	Free
Google Earth	Free
Google Sheets	Free
Google Slides	Free
Hands on Equations 1 & 2	$2.99
iBooks	Free
iMovie*	$2.49
Inspiration Lite (a.k.a. Inspiration Maps)	Free
iSpeech TTS	Free
iTunes U	Free
Keynote*	$4.99
Khan Academy	Free
Kindle	Free
LAMP Words for Life	$199

Metronomoes	Free - new app (Music)
MotiConnect	Free - new app (Science)
Music Tutor	Free - new app (Music)
My Homework	Free - new app (Science)
Nasa	Free - new app (Science)
Naviance Student	Free - new app (Guidance)
Notability*	$2.49
Nuclear	Free
Numbers*	$4.99
Overdrive	Free
Pages*	$4.99
Photosynth	Free
Pinterest	Free - new app (Dowler)
Pocket Latin Lite	Free
PodCasts	Free
Prezi for iPad	Free
Procreate	$2.99
QR Code Reader by Scan	Free
SAT UP	Free
Schoology	Free
Science@VL (a.k.a. Science Glossary)	Free - new app (Science)
Shortcut to https://i4class.com/login	Free (Peters)
Shortcut to: Naviance, Moodle, Bedford Google Apps, Aspen	Free
ShowMe	Free - new app (Science)
Sketchpad Explorer	Free
Skitch	Free
Skype	Free
SMART Notebook - (Math Budget)	$3.50
Snapguide	Free
Socrative Student Clicker	Free
Socrative Teacher Clicker (teachers only)	Free
Stop Motion Animation	Free - new app (ELL)
TeachPoint (teachers only)	Free
Toontastic	Free
Tuner Lite	Free - new app (Music)
Twitter	Free
Vernier Graphical Analysis	Free
Vernier Video Physics	$2.49
Voice Record Pro	Free - new app (Music)
VoiceThread	Free
Wave Pad	Free - new app (Art)
Wolfram Alpha Viewer	Free - new app (Science)
WordPress	Free

Virtually all students use their iPads as note-taking (**Notability, e.g**.) and assignment planning tools. During lectures and discussions, students use them in class to research information either prompted by the teacher or by their own interest. Students use them for recording pictures,

interviews and experiments, and for most English classes, where student portfolios have become the norm, they capture their work products, store them and reflect upon them. They use them as analytic tools (spreadsheets).

They are regularly used by teachers to check for understanding (**Socrative, e.g.,**) as students record their answers to projected questions and the classes' responses are graphed on the SmartBoard and analyzed in real time. The seminal instructional research by John Hattie (from 900+ meta-analyses, clearly indicates that feedback has the greatest effect-size of all teaching strategies. iPads make possible a previously implausible degree of ongoing assessment of student understanding that not only fully informs the teacher as to who actually understands and who does not, but it also ensures that all students answer the question and therefore must think about it. In this way, the iPad-facilitated questioning and answering is not only an assessment process, but also an engagement and learning process. The graphing the whole class's responses and involving the students in an exploration of their responses further deepens the learning.

Students access, complete and submit work and receive feedback via **Evernote, Google drive and Dropbox**. With significant numbers of teachers having moved to paperless communication, the students also use their iPads to access and complete assignments (from teacher web pages) and send them to their teachers.

With significant numbers of teachers having moved to paperless communication, the students also use their iPads to access assignments, teacher-created videos, content and direction from teacher web pages like the one below.

https://sites.google.com/a/bedford.k12.ma.us/morrison/home

A number of teachers have "**flipped the classroom**" or engaged in other forms of lecture recording or the creation of how-to videos that students then view at home. **Students also create how-to videos** that not only assist their peers but clearly demonstrate a deeper understanding of the subject matter.

IPADS, COST OR TIME-SAVING EFFICIENCIES AND IMPROVED LEARNING

Several math classes are using **i4Class,** a web-based program that challenges students to keep working at problem sets until they get them right; provides video tutorials for each new concept; self-corrects and enables the teachers to track the students' progress. This yields several dividends:

- Students working at home persist at trying to solve their problem sets
- The teacher saves time previously spent on correcting homework and has more time to help students in class
- Teachers do not have to use the first part of the class meeting to review the homework, but rather, he/she begins the class knowing which areas the students found most difficult and can tailor the lesson accordingly.

Research, writing and collaboration using **Google Docs** and other programs are common student uses of the iPads, particularly since we purchased keyboards to make extended writing more accessible. **Desmos.com** is a free interactive graphing calculator that works seamlessly on the iPad and has been adopted in many math classrooms. It has several interactive features that make graphs come alive. **Schoology** is the top choice of many teachers at the moment for sharing digital content with students. It's essentially like Moodle as it's an online warehouse for documents.

PCs and Laptops Freed-up By iPads.

The iPad one to one initiative has enabled us to take one high school computer lab off line and turn it into a classroom. The iPad initiative has also enabled us to move 48 laptops to the middle school. Since they were Wyse Terminals they cannot, unfortunately be used in other schools.

One to One Evaluation. The high school has contracted this year with a national analytics company, Brightbytes, that assesses educational technology use. The comparative data involves 11000 schools and 1.5 million students. Below, comparing BHS students' responses (solid) to the national data (stripes), it is clear that we are ahead of most districts in the use of iPads for authentic problem solving, research, analyzing data, internet research, use of spreadsheets, etc. Additional surveying will be completed later in the year.

Students are asked to identify and solve authentic problems

Students are asked to conduct experiments or perform measurements
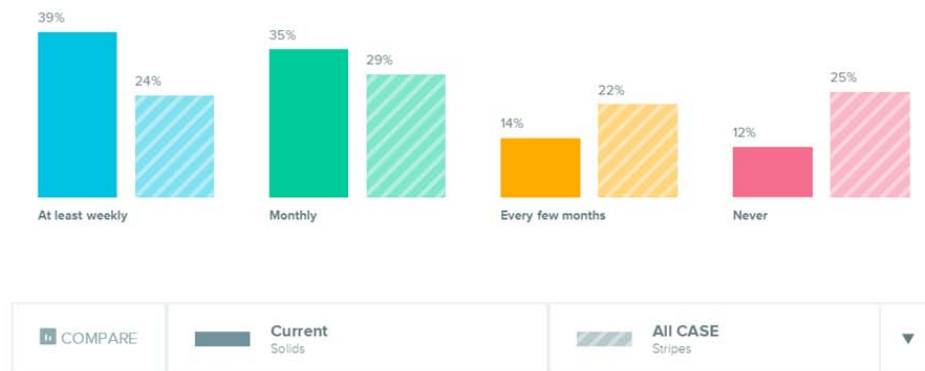
TEXTBOOK REPLACEMENT

This has gone more slowly than originally assumed largely because the textbook companies have moved quickly to make online versions relatively expensive. However, teachers are creating their own content and to date, Algebra II and Calculus 4 will not be buying any new textbooks. Work is being done in Pre-Calculus and Geometry to make similar changes possible.

Students are asked to collect and analyze data

	At least weekly	Monthly	Every few months	Never
Current (Solids)	44%	34%	13%	9%
All CASE (Stripes)	31%	30%	20%	19%

COMPARE — Current (Solids) — All CASE (Stripes)

Students are asked to conduct research

	At least weekly	Monthly	Every few months	Never
Current (Solids)	60%	28%	7%	5%
All CASE (Stripes)	51%	33%	12%	5%

COMPARE — Current (Solids) — All CASE (Stripes)

TELEVISION EQUIPMENT AND STUDIO
The high school offers a broadcast journalism course and a student-run morning television news and announcements program. The course is co-taught by a Bedford High School faculty member and, as a service from BedfordTV, a Bedford TV broadcast journalism expert. The program also airs student video work. Its equipment is listed in the appendix.

JOHN GLENN MIDDLE SCHOOL

DESKTOP DISTRIBUTION AT JGMS

JGMS (Facilities and CO)	Desktops	Total Number: 254
B124	desktops	6
Central Office	desktops	9
D204	desktops	4
Facilities	desktops	8
Lab B216	desktops	30
Library	desktops	26
Library Lab	desktops	28
Multi Purpose Room	desktops	10
Skill Center B125	desktops	8
Student machines in classrooms	desktops	63
Total number of desktops assigned to faculty and administrators:		96
Total number of desktops available for student use:		158

Special Education (at JGMS and BHS): Certain departments (students and teachers) use technology in very specific, fully integrative ways. Special education teacher and students usage provides a powerful case in point. Some of these applications are PC based and some are iPad based.

- **Communication** with students via **iMessenger** and email- *teachers report that this has dramatically increased student engagement* and with **students and parents** via websites, message blast, anonymous text messaging programs- *helps to increase student accountability*
- Apps that *promote student learning* for students with disabilities: **breathing and meditation apps** for our students with *social/emotional disabilities,* **IXL** for students with *math challenges;* **DragonSpeak** for students with *written expression struggles*
- *Supporting student organizational difficulties* with note-taking apps (**Notability, Evernote)** and online daily planners
- **AIMSweb** at JGMS for **progress monitoring and data tracking**- *provides informal assessment information*
- *Engaging students in the learning process* through various tools for demonstrating knowledge and understanding- **Glogster, Prezi**, etc.
- Creating digital portfolios for learning with **Google docs and Evernote**
- *Supporting group learning* through common apps such as **Google docs**
- *In-the-moment information to parents in meetings* via use of iPads and laptops- being able to access **Aspen for IEPs, schedules, grades** in meetings helps support communication with parents
- **Kurzweil** program to support our *struggling readers* (text to voice)
- *Behaviorioal data collection* apps on the **iPads**

JGMS Software- Computer Labs and Work Stations (Examples- See Spreadsheet for Complete Listing)

- General lab and Library Lab: E.g., Photoshop Elements, Mapmakers Toolkit, Scopemaster,
- Library- iTALC
- Special Ed Teachers Work Station: WIAT-III/IV Scoring, BASC-II, WISC-IV, PsychoCorpCenter, Connors 3
- Math Teachers Work Station (1 PC): Easy Planner (Math: Algebra1, Algebra2 & Geometry
- FL Teachers Work Station (1PC):EuroTalk French, EuroTalk Spanish

Self-paced learning reinforcement. Middle School teachers have been using a program called iXL for supplemental practice. iXL is a web based program that essentially provides additional practice in targeted math areas and, for grammar, in English Language Arts. It is widely used in the Skills Center.

Usage
The labs and library are fully scheduled and are used for research, extended writing assignments, work product creation and presentation, and subject-specific programs.

Laptops at JGMS are used by administrators and laptop carts are used in classrooms- for research, extended writing, work production and collaboration.

JGMS (Facilities and CO)	Laptops	Total Number: 113
Central Office	laptops	6
Facilities	laptops	2
Faculty/Admin Laptops	laptops	4
laptop carts (3 carts)	laptops	77
Tech Ed (2 carts)	laptops	24
Total number of laptops assigned to faculty and administrators:		**12**
Total number of laptops available for student use:		**101**

iPADS at JGMS
In the few months since the 90 iPads were introduced at JGMS, the usage has grown steadily, with 412 requests to date. Easier to use than laptops, which require set-up time, the iPads are increasingly the technology of choice. The chart below, depicting laptop usage for one of the three carts, indicates their popularity as instructional tools.

Similar to the high school, iPads are used in class for research, just-in-time assessment, project creation and knowledge demonstration (iMovies, story boards, power points, etc.). In science classes, they have been used for live interactive learning through such programs as **EarthKam,** created by astronaut Sallie Ride, where students compete with learning projects that involve interaction with the space station and its imaging equipment. In these first three months, teachers have requested the addition of twelve new apps, from subject-specific learning apps to assistive technology.

Teal Cart	October '14	November '14	1st 2 Weeks December '14		Total (by dept)
English	6	18	8	English	32
Math	0	1	4	Math	5
Science	0	26	21	Science	47
Social studies	17	13	0	Social studies	30
Foreign Language	2	0	0	Foreign Language	2
SPED	5	0	0	SPED	5
Other	0	0	12	Other	12
	October '14	November '14	December '14		
Total (by month)	30	58	45		

Again in these first few months, with the exception of the math department, iPad usage is relatively evenly spread across the core subjects, as is evident in the graph below.

Total (by dept)

■ English ■ Math ■ Science ■ Social studies ■ Foreign Language ■ SPED ■ Other

1% 4% 9% 24% 4% 35% 23%
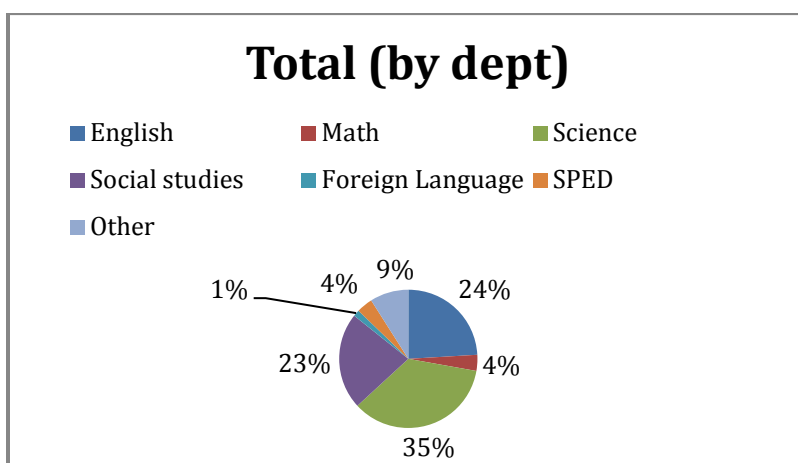
Apps and Potential for Bringing Own Devices. JGMS iPads have many of the same applications as the BHS iPads (see appendix for full list). We are not one to one at JGMS and do not plan to be until, perhaps, we reach the stage when bringing one's own device will make sense in terms of assured access, ubiquitous apps., network safety and device affordability.

LANE SCHOOL

DESKTOP DISTRIBUTION AT LANE

Lane	Desktops	Total Number: 158
Computer Lab	desktops	28
Library	desktops	8
Lower West Wing	desktops	8
Multi Purpose Room	desktops	18
Upper West Wing	desktops	10
Student machines in classrooms	desktops	20
Total number of desktops assigned to faculty and administrators:		**66**
Total number of desktops available for student use:		**92**

Lane School Computer Lab Sample Uses:
- Science and Technology: LegoWeDo, Mapmaker's Toolkit- All 4th graders learn about programming and how to think critically through the building of Ferris Wheels using Lego Robotics. After they build them, working in pairs they figure out how to program them to run and to stop and start to let off passengers.
- 5th graders will work with MIT- generated Scratch software to learn programming basics.
- **Programming Tools: "**The Lego education tools provide a learning solution that blends hands-on manipulatives with integrated technology and curriculum to create a minds-on experience that is aligned with key educational standards and learning objectives. The project-based activities help build science, technology, engineering, and math (STEM) knowledge while incorporating lessons in language arts. Students will utilize their skills to create moving models, all while enhancing their creative and problem-solving abilities."
  https://education.lego.com/en-us/lesi

Lane	Laptops	Total Number: 24
Faculty/Admin Laptops	laptops	6
Library (Purple Cart)	laptops	13
Navy Cart	laptops	5
Total number of laptops assigned to faculty and administrators:		**6**
Total number of laptops available for student use:		**18**

Lane Software
Computer lab desktops contain the Base Template plus Lego WeDo and Mapmaker's Toolkit. Teacher stations include additional software such as Diorama Designer, Factory Deluxe, Rainforest Designer, Tessellation, Work and Simple Machines, Time Liner 5, etc.

Lane Netbooks
Lane has 27 Netbooks purchased in FY12. Some of the software that students use includes: 3D Chess, Soduko, Stellarium, Metacity, etc. See appendix for full list.

iPADs at Lane School
The iPads at Lane are few in number but have been used in outstanding ways. Approximately a dozen iPads obtained through grants and other funds have been used by special education teachers to augment instruction in small groups.

The 30 iPads that were leased in the FY15 operating budget have been used in two classroom pilots. One of these, the **fifth grade digital portfolio project**, along with its counterparts in the high school English and Foreign Language departments, exemplifies deep metacognitive learning. Students record, take pictures of, or otherwise save their work on a regular basis. Part of their learning involves curating and critiquing their own work, selecting what they consider to be a strong example and providing a rationale. By reviewing the progress of their skill development, for example by examining a series of writing assignments over time, with perhaps a teacher determined focus such as voice, or character development, or logical organization, the students not only improve the relevant skills but become aware of the relationship between work and progress, or mistakes and improvement.

This is a direction that we intend the whole district to move in over the next several years as we train teachers to guide their students through portfolio creation and reflection, and as we develop the technological capacity to warehouse large amounts of student work. Our **core goal of developing reflective, independent learners** depends upon the development of students' **metacognitive skills**, which in turn depends upon their **learning how to select, categorize and critique their own work over time**.

Similarly, our **ability to assess students' higher order thinking and their ability to use, apply or transfer their skills and knowledge** depends upon the creation of what we call **performance-based and project-based assessments.** These too will become a part of the students' cumulative portfolio of work. iPads (or similar handheld devices) are essential to the process of recording this work and storing it in a digital, perhaps cloud-based, platform. They also provide a versatile means of accessing this work by students and teachers.

DAVIS SCHOOL

DESKTOP DISTRIBUTION AT DAVIS

Davis	Desktops	Total Number: 133
Blue Pod	desktops	12
Computer Lab	desktops	13
Green Pod	desktops	12
Library	desktops	7
Red Pod	desktops	12
Yellow Pod	desktops	12
Student machines in classroom	desktops	11
Total number of desktops assigned to faculty and administrators:		**54**
Total number of desktops available for student use:		**79**

Davis Desktop Usage

In the library computer lab, students regularly learn about communities and geography using **Google Earth** and about basic societal functions such as resource gathering, maintaining health and building useable structures through **MineCraft**. They have also been introduced to coding through the Hour of Code.

The desktops in the pods have long been unusable, as Davis was the bottom of a trickle down computer distribution approach that could not keep up with demand. Our new multi-year technology plan seeks to redress this deficiency so that instructional technology can be shared by multiple classrooms on a regular basis.

iPods and iPads and Differentiated Instruction

Both are used as listening devices in small group reading centers (the Daily Five) where students move from center to center to access literacy through different kinds of learning activities, one of which is listening to stories. Teachers are further integrating the iPads into individual and small group reading and math instruction, as they provide a plethora of self-paced learning opportunities to students. In this way, they make possible a level of differentiated instruction (tailored to students' learning styles or learning needs) that would not be possible without these devices.

Additionally, they are used to capture students' thinking and learning, where students use visually and/or orally record their work and then present it. The iPads are used as well for elementary research. With only 30 iPads available last year, and the addition of 30 more this year, there are not yet sufficient devices to be used in every classroom. Our goal is to be able to make 5 or 6 available to every class.

The interactive white boards have just been installed so we have not begun using them but will be trained when we return from break.

Davis	Laptops	Total Number: 7
Faculty/Admin Laptops	laptops	7
Total number of laptops assigned to faculty and administrators:		7
Total number of laptops available for student use:		0

SMART Table: Davis has one grant-funded (Bedford Education Foundation) SMART Table, which is a highly interactive, tactile whiteboard laid horizontally that enable small groups of students to work together manipulating data and solving problems. "The SMART Table is a multi-touch and multi-user interactive learning center that allows groups of students to work simultaneously on its surface. It engages students through audio, visual and tactile activities, thus providing an inclusive learning environment that fosters collaboration and creative problem solving." * *SMART Tables are a newer technology; we are basing the life span of these devices on the industry standard of the life span of the SMARTBoard.*
 http://education.smarttech.com/en/products/smart-table

APPENDICES

A. EXCELLENT EXAMPLES OF STUDENT LEARNING

Please visit our Biblio-TECH Newsletter at http://bedfordtechlibrary.weebly.com/
Also, please attend our second annual Technology Showcase in the spring.

B. HARDWARE LIFE SPAN

Technology	Cost Per Unit	Life Span
Epson Brightlinks	$ 1,700	7 years
Laser Printers	$ 800	7 years
Mac Desktops	$ 1,100	5 years
Mac Laptops	$ 1,100	3 years
PC Desktops	$ 800	5 years
PC Laptops	$ 850	3 years
SMARTBoards	$ 5,600	7 years
SMART Table	$ 8,500	7 years
Programming Tools	$ 1,500 - $14,000	5 years

C. BHS TELEVISION STUDIO EQUIPMENT

Live Platform Area: (This is the area of the studio where they broadcast BHS Live.)
- 3 cameras
  - 3 JVC 3-CCD Pro Camcorder with 16:1 Fuijinon Lens
- 3 camera stands
  - 3 Manfrotto Tripods Camera Stands
- 1 microphone
  - 1 Shure SM48 Microphone
- 1 microphone stand
  - 1 Shure Microphone Stand
- 1 microphone cable
  - 1 - 25ft XLR Microphone Cable

TV Studio Recording Area: (This is the area of the studio where they record and monitor the broadcast to make adjustments to audio levels and run the broadcast of BHS Live.)
- 1 recording station
  - 1 DVD recorder/player/disk drive
    - 1 - JVC SR-DVM600 (3 in 1 Video Recorder/Player MidiDV, DVD, Hard Disk Drive)
  - 1 DVD/VHS video recorder combo
    - 1 - JVC SR-MV45 (DVD Video Recorder/S-VHS Video Recorder Combo Deck)

- o 1 DVD recorder
  - 1 - DVD Panasonic DMR-EZ28 (DVD Recorder)
- 1 digital video mixer
  - o 1 - Mackie 1402-VLZ3 Mixer (Studio Monitoring, Digital recording, Amplifer mic/line channel with fader)
- 1 two channel communication device
  - o 1 - Anchor Audio BP-200 with Headset/Mic (Portable two channel communication device)
- 1 digital audio mixer
  - o 1 - Panasonic AG-MX70 Switcher (8-Input Professional Digital A/V Mixer)
- 1 - 10" monitor to preview camera/DVD input
  - o 1 - JVC TM-A130SU 10" monitor
- 4 – 10" monitor to preview camera/DVD input
  - o 4 - JVC TMA1-1GU 10" monitor
- 1 computer and 17" monitor with media broadcast connections to add text to video in real time and convert the signal to the appropriate format

D. HARDWARE

Location	Item	# Item
Davis	**Desktops**	**Total Number: 133**
Blue Pod	desktops	12
Computer Lab	desktops	13
Green Pod	desktops	12
Library	desktops	7
Red Pod	desktops	12
Yellow Pod	desktops	12
Student machines in classroom	desktops	11
Total number of desktops assigned to faculty and administrators:		**54**
Total number of desktops available for student use:		**79**
Davis	**Laptops**	**Total Number: 7**
Faculty/Admin Laptops	laptops	7
Total number of laptops assigned to faculty and administrators:		**7**
Total number of laptops available for student use:		**0**
Davis	**iPads**	**Total Number: 65**
Faculty/Admin iPads	iPads	5
iPads (2 carts)	iPads	60
Total number of iPads assigned to faculty and administrators:		**5**
Total number of iPads available for student use:		**60**
Davis	**Mobile Devices**	**Total Number: 23**
iTouches	iTouches	23
Total number of mobile devices assigned to faculty and administrators:		**0**
Total number of mobile devices available for student use:		**23**
Location	**Item**	**# Item**

Lane	Desktops	Total Number: 158
Computer Lab	desktops	28
Library	desktops	8
Lower West Wing	desktops	8
Multi Purpose Room	desktops	18
Upper West Wing	desktops	10
Student machines in classrooms	desktops	20
Total number of desktops assigned to faculty and administrators:		**66**
Total number of desktops available for student use:		**92**
Lane	Laptops	Total Number: 24
Faculty/Admin Laptops	laptops	6
Library (Purple Cart)	laptops	13
Navy Cart	laptops	5
Total number of laptops assigned to faculty and administrators:		**6**
Total number of laptops available for student use:		**18**
Lane	iPads	Total Number: 92
Faculty/Admin iPads	iPads	8
iPads (3 carts)	iPads	84
Total number of iPads assigned to faculty and administrators:		**8**
Total number of iPads available for student use:		**84**
Lane	Mobile Devices	Total Number: 67
iTouches	iTouches	30
Netbooks	Netbooks	27
Nooks	Nooks	10
Total number of mobile devices assigned to faculty and administrators:		**0**
Total number of mobile devices available for student use:		**67**
Location	Item	# Item
JGMS (Facilities and CO)	**Desktops**	**Total Number: 254**

B124	desktops	6
Central Office	desktops	9
D204	desktops	4
Facilities	desktops	8
Lab B216	desktops	30
Library	desktops	26
Library Lab	desktops	28
Multi Purpose Room	desktops	10
Skill Center B125	desktops	8
Student machines in classrooms	desktops	63
Total number of desktops assigned to faculty and administrators:		**96**
Total number of desktops available for student use:		**158**
JGMS (Facilities and CO)	**Laptops**	**Total Number: 113**
Central Office	laptops	6
Facilities	laptops	2
Faculty/Admin Laptops	laptops	4
laptop carts (3 carts)	laptops	77
Tech Ed (2 carts)	laptops	24
Total number of laptops assigned to faculty and administrators:		**12**
Total number of laptops available for student use:		**101**
JGMS (Facilities and CO)	**iPads**	**Total Number: 103**
Faculty/Admin iPads	iPads	10
Central Office	iPads	1
CO SPED	iPads	2
Facilities	iPads	0
iPads (3 carts)	iPads	90
Total number of iPads assigned to faculty and administrators:		**13**
Total number of iPads available for student use:		**90**

JGMS (Facilities and CO)	Mobile Devices	Total Number: 14
iTouches	iTouches	10
Tablets (not iPads)	Tablets	4
Total number of mobile devices assigned to faculty and administrators:		0
Total number of mobile devices available for student use:		14
Location	**Item**	**# Item**
High School	Desktops	Total Number: 246
A 201D	desktops	3
Art Lab	desktops	15
Drafting Lab	desktops	11
Foreign Language Lab	desktops	30
H205 Lab	desktops	30
Library	desktops	36
Music Lab	desktops	21
Replacement Machines (District)	desktops	30
Skill Center	desktops	2
Yearbook Room	desktops	8
Total number of desktops assigned to faculty and administrators:		121
Total number of desktops available for student use:		95
Total number of deskops unassigned - used as replacement machines throughout the District:		30
High School	Laptops	Total Number: 158
Art Lab	laptops	2
Faculty/Admin Laptops	laptops	31
laptop carts (6)	laptops	72
Replacement Machines (District)	laptops	3
Science Laptops	laptops	48
Total number of laptops assigned to faculty and administrators:		31

Total number of laptops available for student use:		127
Total number of laptops unassigned - used as replacement machines throughout the District:		3
High School	Terminals	Total Number: 85
A 201D	terminals	4
Business/Programming Lab C108	terminals	25
Replacement Terminals	terminals	10
Skill Center	terminals	4
Physical Education	terminals	4
Cafeteria	terminals	1
Nurse	terminals	1
D103	terminals	2
D104	terminals	1
D105	terminals	1
Guidance	terminals	4
Custodian	terminals	1
D106	terminals	8
C112	terminals	3
C113	terminals	2
C114	terminals	2
E108	terminals	1
E202	terminals	2
E203	terminals	2
E204	terminals	2
A216	terminals	1
B201	terminals	1
C106	terminals	1
A212	terminals	2

Total number of terminals assigned to faculty and administrators:		14
Total number of terminals available for student use:		61
Total number of terminals unassigned - used as replacement machines throughout the District:		10
High School	**iPads**	**Total Number:** **1061**
Faculty/Admin iPads	iPads	116
Replacement Machines - Loaners	iPads	65
Total number of iPads assigned to faculty and administrators:		116
Total number of iPads available for student use:		880
Total number of iPads unassigned - used as replacement machines throughout the District:		65

E. HARDWARE AGE

	FY14 (2013)		FY15 (2014)		Class A 0-4 Years	Class B 5-6 Years	Class C 7-8 Years*	Class D 9-10 Years*	Class E 11-12 Years	Totals	Students	Teachers, Admin and Sec
PC	BHS	36	BHS	TBA	118	67	113	0	0	298	868	113
	JGMS	41	JGMS	TBA	97	78	63	0	0	238	565	72
5 Year	Lane	13	Lane	TBA	36	42	87	12	0	177	533	58
Life	Davis	11	Davis	TBA	66	31	52	3	0	152	543	50
Span	**District Total**	**101**	**District Total**	**TBA**	317	218	315	15	0	865	2509	
$750-$800												
Wyse ThinClient Terminals	BHS	0	BHS	TBA	0	150	0	0	0	150		
	JGMS	0	JGMS	TBA	0	0	0	0	0	0		
	Lane	0	Lane	TBA	0	0	0	0	0	0		
	Davis	0	Davis	TBA	0	0	0	0	0	0		
5 Year Life Span	**District Total**	**0**	**District Total**	**TBA**	0	150	0	0	0	150		
Laptop PC	BHS	3	BHS	TBA	10	87	70	0	0	167		
	JGMS	1	JGMS	TBA	59	39	18	0	0	116		
3 Year	Lane	5	Lane	TBA	17	2	2	0	0	21		
Life	Davis	5	Davis	TBA	7	0	1	0	0	8		
Span	**District Total**	**14**	**District Total**	**TBA**	93	128	91	0	0	312		
$850												
Laptop Macbook	BHS	13	BHS	TBA	25	0	0	0	0	25		
	JGMS		JGMS	TBA	0	0	0	0	0	0		
	Lane	2	Lane	TBA	3	0	0	0	0	3		
3 Year	Davis	1	Davis	TBA	1	0	0	0	0	1		
Life Span	**District Total**	**16**	**District Total**	**TBA**	29	0	0	0	0	29		
$1,100												
Projectors	BHS	5	BHS	TBA	8	12	59	0	0	79		
	JGMS	3	JGMS	TBA	6	1	1	26	14	48		
	Lane	6	Lane	TBA	26	2	3	0	0	31		
7 Year	Davis	0	Davis	TBA	6	2	0	0	0	8		

Life Span	**District Total**	**14**	**District Total**	**TBA**	46	17	63	26	14	166		
SMARTboards	BHS	0	BHS	TBA	1	52	0	0	15	68		
	JGMS	3	JGMS	TBA	5	0	0	22	13	40		
	Lane	6	Lane	TBA	13	1	0	0	0	14		
7 Year Life Span	Davis	0	Davis	TBA	3	0	0	0	0	3		
	District Total	**9**	**District Total**	**TBA**	22	53	0	22	28	125		
$5,600												
Epson Brightlink Interactive Projectors	BHS	0	BHS	TBA	0	0	0	0	0	0		
	JGMS	0	JGMS	TBA	0	0	0	0	0	0		
	Lane	0	Lane	TBA	5	0	0	0	0	5		
	Davis	0	Davis	TBA	0	0	0	0	0	0		
7 Year Life Span	**District Total**	**0**	**District Total**	**TBA**	5	0	0	0	0	5		
$1,700												
iPads (Leased)	BHS	331	BHS	TBA	1039	0	0	0	0	1039		
	JGMS	2	JGMS	TBA	2	0	0	0	0	2		
3 to 4 Year Life Span	Lane	43	Lane	TBA	58	0	0	0	0	58		
	Davis	30	Davis	TBA	36	0	0	0	0	36		
	District Total	**406**	**District Total**	**TBA**	1135	0	0	0	0	1135		
Smart Table	**Davis**											
$8,500												
Mobile Devices	BHS - iTouches	0	BHS - iTouches	TBA	3	2	0	0	0	5		
	BHS - Sympodiums	0	BHS - Sympodiums	TBA	0	2	0	0	0	2		
	JGMS - iTouches	1	JGMS - iTouches	TBA	11	0	0	0	0	11		
	JGMS - Galaxy Tablets	0	JGMS - Galaxy Tablets	TBA	4	0	0	0	0	4		
	JGMS -	0	JGMS -	TBA	0	0	3	0	0	3		

Sympo diums			Sympo diums								
Lane - iTouch es	0		Lane - iTouch es	TBA	30	0	0	0	0	30	
Lane - Netboo ks	0		Lane - Netboo ks	TBA	27	0	0	0	0	27	
Lane - Nooks	0		Lane - Nooks	TBA	11	0	0	0	0	11	
Davis - Sympo diums	0		Davis - Sympo diums	TBA	1	0	0	0	0	1	
District Total	**1**		**District Total**	**TBA**	87	4	3	0	0	94	

2014-2015: Have phased out Class D machines and some Class C.

F. SOFTWARE DESCRIPTIONS *Below is a list of the most commonly used software that is either installed on machines, accessed through the web or installed as an iPad app. Please note that the software overviews were copied and pasted from various web sites.*

Software	Access	Software Overview (All information is taken from web sites.)
Animoto	Web based and iPad App	"Animoto makes it easy to create professional-quality videos on your computer and mobile device. Animoto takes photographs and allows users to add sound and text, as well as control some editing of the video project, in order to share stories through a short video presentation. Students will find the ability to express themselves through new media tools an attractive aspect of Animoto, and teachers can utilize this tool as a way to bridge curriculum and student engagement or develop digital storytelling projects. For students and teachers tired of PowerPoint presentations, Animoto is just as easy to use and provides a wider multimedia experience."
Aspen	web based	"Aspen is a Student Information System (SIS) platform that manages student data, empowers reporting, and engages staff with essential collaboration and instruction tools that are seamlessly integrated with Aspen's Instructional Management System (IMS). Aspen (SIS) tracks class schedules, school events, student performance, athletic eligibility, and even health records. Our software contains a powerful gradebook, web page development for teachers, single- login for each user, and provides quick access to the data you need most. Aspen collects information required by state-specific guidelines and readily prepares it for hand-off to state officials making state-wide reporting a snap."
Audacity	installed	"Audacity is an open source software program that is used to edit, record or listen to digital audio files. Fluency - Students can record their voices and listen to check their intonation and pronunciation. Foreign Language - Teachers can record proper pronunciation of a foreign language so students can listen and practice. Students can record and listen to see if they are using proper articulation. Podcasting/Language Arts - Use Audacity to record a "show" to inform others about class news, current events, and areas of interest. Students can persuade their peers to help others, make a difference, or try something new. Podcasts can also entertain others with various stories, poems, and/or jokes. Once the "show" is recorded, convert it to an mp3, and place the file on a website with RSS, Real Simple Syndication, so people can subscribe to your show and listen to it on the computer or on a portable device. Other ideas include reading poetry aloud to hear rhythm and rhyme, teaching skills with song, recording reader's theater, storytelling, recording debates, publishing personal narratives, creating a class storybook, making sound recordings from the first person point of view (diary or journal style), making audio books for younger readers, recording/listening to interviews, recording how-to instructions or directions, and recording classroom news reports."

Audioboo	iPad app	"Audioboo is an audio platform that makes it easy to create and share podcasts with, students, parents and the world. Audioboo's are limited to 5 minutes of length. One of the things that makes Audioboos appealing in the classroom is that your Audioboo feed can be subscribed to in iTunes just like any podcast. Audioboos can also be shared on other social media sites like Facebook and Twitter. "
Blogger	Web based and iPad App	"Blogger is Google's free web based tool for creating blogs. Blogs, short for web-logs, are a form of online journal."
Book Creator	iPad app	"The simple way to create your own beautiful iBooks, right on the iPad. Read them in iBooks, send them to your friends, or submit them to the iBooks Store. Ideal for children's picture books, photo books, art books, cook books, manuals, textbooks, and the list goes on. Choose from portrait, landscape or square book sizes. Quickly add pictures from the Photos app, or grab them from the web, then move, resize and rotate them with your fingers. Edit text using the onscreen keyboard, and apply rich formatting to make it look great. Import video and music, and record speech within the app. Draw and write in your books with the freehand pen tools. Layout your books exactly as you want it with guidelines and snap positioning. A quick tap and you're reading your book in iBooks! Send your books to your friends over email, to iTunes on your computer or over Dropbox. Export them as PDF or as a movie and upload to the web. "
BrainPop	Web based and iPad App	"BrainPOP provides curriculum-based content geared specifically for elementary students. The site offers a growing library of movies and interactive features across six subjects: science, health, writing, reading, social studies, and math. Our engaging resources support educators and meet students' different learning styles and abilities. Our content includes short animated movies, leveled quizzes, activities, recommended grade-appropriate reading, writing and discussion prompts, and more. All content is aligned to and searchable by state standards. "
Brushes 3	iPad app	"Brushes is a painting app designed exclusively for iOS. An accelerated OpenGL-based painting engine makes painting smooth and responsive — even with huge brush sizes. Brushes also records every step in your painting. Show off your creative process by replaying your paintings directly on your device."
Content Specific - Art	some installed and some iPad apps	**BHS Apps:** Wave Pad and ProCreate
Content Specific - FL	some installed and some iPad apps	**BHS Apps:** Pocket Latin Lite
Content Specific - Math	some installed and some iPad apps	**Davis Apps:** Addition!, Geoboard, Know Your Math, Math Cards, Math Lands, Number Line, Number Pieces, Number Rack, Subraction!, and Pizza Fractions **Lane Apps:** Fractions, Numbers, EFlashcards, Divisibility Dash, Math Man, and Squeeze **BHS Apps:** Desmos, Geogebra, Hands on Equations 1 & 2
Content Specific - Music	some installed and some iPad apps	**JGMS and BHS Apps:** Metronome, Djembe! Free, Music Tutor, Tuner Lite, and Voice Record Pro

Content Specific - Science	some installed and some iPad apps	**Davis Apps:** Electric Company **JGMS Apps:** Nuclear **BHS Apps:** AP Exam Prep Environmental Science, Clinometer HD, Wolfram Alpha Viewer, Vernier Graphical Analysis, Vernier Video Physics, MotiConnect, My Homework, Nuclear, and Science@VL (a.k.a. Science Glossary)
Content Specific - SS	some installed and some iPad apps	**Davis Apps:** Kids Planet Discovery
Core FX	installed	"Corefx is a draw, paint, animate program specially aimed at younger users. There are a wide range of realistic rich media: crayons, felt pens, watercolor paints, oil pastels, chalks, airbrush sprays, pencils, acrylic paints, charcoal, poster paints and much more. The stamp library provides hundreds of relevant images that can be flipped, resized, skewed and transformed in many different ways. Use the special effects tools to smear, lighten, darken, sharpen or soften to give your artwork a more realistic look or to edit your family photos. Combine a sequence of images to create your very own animations. With a range of cartoon elements to choose from you can create animations in no time."
Creo	installation	"3D CAD software allows users to build three-dimensional virtual prototypes that improve product quality and speed time-to-market by automating the product development process. There are a variety of modeling tools available to create digital prototypes, but only PTC Creo CAD software offers a unified product design and development environment that lets you incorporate a full range of direct and parametric modeling technologies, methodologies and best practices. This fosters greater productivity and innovation by better accommodating the diverse needs of product development professionals across varied disciplines, levels of expertise and degrees of specialization."
Doodlecast	iPad app	"Doodlecast Pro is the easiest way to create presentations on your iPad. The app records your voice as you draw to create quick presentations. Doodlecast Pro saves videos to the camera roll making it easy to import them into popular video editors or presentation tools such as iMovie, Keynote, or iBooks Author. Doodlecast Pro helps you create and share videos for a range of purposes. Prepare lessons to share with your students. Create video school reports on your favourite topic. Provide feedback on visual designs, layouts, or charts. Annotate charts and graphs for business presentations. Capture mind maps and notes during brainstorming sessions. Create fun animated messages to send to friends and family. The thinking that goes into presentations and brainstorming sessions is as important as the end results. Doodlecast Pro helps you capture the whole process, not just the result - making it easy to share and review your ideas. Doodlecast Pro saves videos and images in standard formats making it easy to share or import into a variety of editing and presentation tools."

Dragon Naturally Speaking	installed and iPad app	"Dragon, the world's best-selling speech recognition software, lets you dictate documents, search the web, email and more on your computer — quickly and accurately — just by using your voice. You don't even have to lift a finger."
Dropbox	Web based and iPad App	"Dropbox is a really convenient and fast way to store and access data. It is just like using any other folder on your hard drive, except the files you drag into your Dropbox folder automatically sync online and to any other computers or mobile devices linked to your account. The application runs in the background and automatically keeps your files in sync and backed up online. It's like having the same folder on all of your computers and mobile devices at the same time."
Easybib	iPad app	"Create accurate MLA, APA, and Chicago style citations in seconds by scanning a book bar code or by typing the name of a book. Build and manage your works cited. Once done, email your citations and then export your citations to EasyBib.com's popular bibliography management service."
eClicker	iPad app	"eClicker is an iPad app that allows the teacher conduct formative assessments with students in their classrooms. The app allows for the teacher to ask questions in three formats (multiple choice, true/false, agree/disagree). The app can collect individual responses and summarize class results. The class results can be shared with the class and students receive feedback on their own responses. Finally, the app can download a record of responses for later review by the teacher. The app runs from your laptop or iPad and allows students to answer from their laptops or iPads. You can include pictures and images in questions."
Edmodo	Web based and iPad App	"Edmodo is an educational network that leverages the social and sharing elements of the Internet. Using many of the same features most have come to expect in other social sharing networks, like Facebook and Twitter, Edmodo lets teachers and students collaborate online, share content, access homework assignments and join online discussions in a safe environment."
Educreations	iPad app	"Educreations is a unique interactive whiteboard and screencasting tool that's simple, powerful, and fun to use. Annotate, animate, and narrate nearly any type of content as you explain any concept. Teachers can create short instructional videos and share them instantly with students, or ask students to show what they know and help friends learn something new. Offer students additional instruction outside the classroom. Enable students to control the pace of their learning. Provide rich audio/video feedback on student work. Gain deep insights into student comprehension. Free up class time for hands-on learning and projects. Tutor someone remotely. Finished lessons are stored securely in your online Educreations account, so they're available whenever and wherever you need them. You control who sees what. Lessons can also be shared via link, email, Messages, Facebook, Twitter, or by embedding them on a blog or website. "
Evernote	Web based and iPad App	"Evernote is a suite of software and services, designed for notetaking and archiving. A "note" can be a piece of formatted text, a full webpage or webpage excerpt, a photograph, a voice memo, or a handwritten "ink" note. Notes can also have file attachments. Notes can be sorted into folders, then tagged, annotated, edited, given comments, searched and exported as part of a notebook. Evernote can be used to create digital portfolios."

Explain Everything	iPad app	"Explain Everything is an easy-to-use design, screencasting, and interactive whiteboard tool that lets you annotate, animate, narrate, import, and export almost anything to and from almost anywhere. Create slides, draw in any color, add shapes, add text, and use a laser pointer. Rotate, move, scale, copy, paste, clone, and lock any object added to the stage. Add new or existing photos and videos. Import PDF, PPT, DOC, XLS, Keynote, Pages, Numbers, and RTF files from Evernote, Dropbox Box, Google Drive, Email, iTunes, and any app that allows you to open these files types using "Open In…". Export MP4 movies, PDF documents, PNG images, or XPL project files directly from your iPad and iPhone. No account is necessary to use Explain Everything and share creations."
Face Time	iPad app	"FaceTime is a video chat application developed by Apple. You can use FaceTime to call someone, and it will ring on all of their Mac devices. Facetime also features a picture in picture view, so you can see the other person that you are talking to."
FirstClass	installed and web based	"FirstClass is a client/server groupware, email, online conferencing, voice/fax services, calendar, social networking, and bulletin-board system. FirstClass's primary markets are the higher-education and K-12 education sectors. "
Flashcardlet	iPad app	"Flashcardlet is a free, easy-to-use studying application with material for any class or standardized test. You can also create and share your own. It is the best way to study on any iOS device. Flashcardlet feels like a real deck of flashcards. Collaboratively creating and sharing study material does not get easier than Flashcardlet. Everything is automatically kept up-to-date with a Brainscape account. You can also email your flashcard decks or share them using Dropbox. From grade school to law school, Flashcardlet is the perfect studying tool for any subject."
GarageBand	iPad app	"GarageBand turns your iPad, iPhone, and iPod touch into a collection of Touch Instruments and a full-featured recording studio — so you can make music anywhere you go. Use Multi-Touch gestures to play a piano, organ, guitar, and drums. They sound and play like their counterparts, but let you do things you could never do on a real instrument. Enjoy Smart Instruments that make you sound like a pro — even if you've never played a note before. Plug an electric guitar into your iPad, iPhone, or iPod touch and play through classic amps and stompbox effects. Use a Touch Instrument, a built-in microphone, or a guitar and instantly record a performance with support for up of 32 tracks*. Share your song using email, Facebook, YouTube or AirDrop for iOS. "
Geometer's Sketchpad	installed	"The Geometer's Sketchpad® is the world's leading software for teaching mathematics. Sketchpad® gives students at all levels—from third grade through college—a tangible, visual way to learn mathematics that increases their engagement, understanding, and achievement. Make math more meaningful and memorable using Sketchpad. Elementary students can manipulate dynamic models of fractions, number lines, and geometric patterns. Middle school students can build their readiness for algebra by exploring ratio and proportion, rate of change, and functional relationships through numeric, tabular, and graphical representations. And high school students can use Sketchpad to construct and transform geometric shapes and functions—from linear to trigonometric—promoting deep understanding."

Gimp 2.0	installation	"GIMP (GNU Image Manipulation Program) is a freely distributed piece of software suitable for such tasks as photo retouching, image composition, and image authoring. It is a powerful piece of software with capabilities not found in any other free software product. It can be used as a simple paint program, an expert-quality photo-retouching program, an online batch-processing system, a mass production image renderer, or an image-format converter. "
Glogster	Web based	"Glogster is a unique social network based on the creation and sharing of Glogs, which are interactive posters loaded with text, graphics, music, videos, and more. Glogster's goal was to provide an outlet for unlimited creative expression online. Today, Glogster empowers millions of people all over the world with a space to express their emotions, ideas, and knowledge online."
Google Calendar	Web based and iPad App	"Overlay multiple calendars to see when people are available - a great way to manage staff schedules, for example. Google Calendar sends invitations and manages RSVPs. Integrated with your school's email Google Calendar is integrated into Gmail and interoperable with popular calendar applications. Share with classes, teams and clubs. Calendars can be shared school-wide or with select colleagues. A range of sharing permission controls help maintain security and privacy."
Google Docs	Web based and iPad App	"Create rich documents with images, tables, equations, drawings, links and more. Collaboratively create a document. Gather input and manage feedback with social commenting."
Google Drive	Web based and iPad App	"Share individual files or whole folders with specific people or your entire team. Create and reply to comments on files to get feedback or add ideas. Fast, easy collaboration. Our website and document creation tools offer real-time editing, powerful sharing controls, and seamless compatibility – an ideal environment for learning in the 21st century. With Google Apps for Education, everything is automatically saved in the cloud - 100% powered by the web. This means that emails, documents, calendar and sites can be accessed - and edited - on almost any mobile device or tablet. Anytime, anywhere."
Google Earth	Web based and iPad App	"Google Earth allows you to travel the world through a virtual globe and view satellite imagery, maps, terrain, 3D buildings, and much more. With Google Earth's rich, geographical content, you are able to experience a more realistic view of the world. You can fly to your favorite place, search for businesses and even navigate through directions. Although the options within Google Earth are endless, here are a few things you can do: Discover the Earth: Fly to any location in the world, learn about a city and it's geographic features, find local businesses, and create tours. Explore the Sky: Enjoy the wonders of the heavens and learn about our solar system. Dive in the Ocean: Go beneath the surface and visit the depths of the ocean and explore the planet's deepest underwater canyons. Learn about ocean observations, climate change, and endangered species. You can even discover new places to surf, dive and fish. Walk on the Moon: Take tours of landing sites narrated by Apollo astronauts and view 3D models of landed spacecraft. Visit Mars: Travel the Red Planet and explore NASA's latest imagery of our galactic neighbor."

Google Maps	Web based and iPad App	"Google Maps is a Web-based service that provides detailed information about geographical regions and sites around the world. In addition to conventional road maps, Google Maps offers aerial and satellite views of many places. In some cities, Google Maps offers street views comprising photographs taken from vehicles."
Google Sheets	Web based and iPad App	"Keep and share lists, track projects, analyze data and track results with our powerful spreadsheet editor. Use tools like advanced formulas, embedded charts, filters and pivot tables to get new perspectives on your data. Collaboratively create a spreadsheet."
Google Sites	web based	"Students can build project sites without writing a single line of code. It's as easy as writing a document. And, to save even more time, you can provide them with hundreds of pre-built templates. Collaboratively create a web site. System and site-level security controls. Administrators can manage site sharing permissions across the school, and authors can share and revoke file access at any time."
Google Sketchup	web based	"Google SketchUp is an easy-to-use yet powerful tool for creating, viewing, and modifying 3D ideas quickly and easily. The program is designed to combine the elegance and spontaneity of pencil sketching with the speed and flexibility of today's digital media. Developed for the conceptual stages of design, SketchUp allows for quick and easy 3D form creation, complete with an interface that supports a dynamic, creative exploration of 3D form, material and light. SketchUp combines a compact yet robust tool-set with an intelligent guidance system that streamlines the 3D drawing process."
Google Slides	Web based and iPad App	"Create beautiful slides with our presentation editor, which supports things like embedded videos, animations and dynamic slide transitions. Collaboratively create a slide presentation. Publish your presentations on the web so anyone can view them, or share them privately."
Graph Club	installed	"Make graphs easy to create and understand! Enhance your students' math skills with the Graph Club 2.0 -- the innovative and easy-to-use tool for creating, exploring, interpreting and printing graphs."
Hopscotch	iPad app	"Hopscotch is a programming app designed for everyone. Perfect of Hour of Code and beyond. In a few minutes, you'll be making characters breakdance, act like a balloon and wiggle. Easy-to-follow videos help you make games. The possibilities are endless. Program your characters to move, draw, and collide with each other, and use shaking, tilting, or even shouting at the iPad to control them."
iBooks	iPad app	"iBooks is an amazing way to download and read books. iBooks includes the iBooks Store, where you can download the latest bestselling books or your favorite classics – day or night. Experience gorgeous fullscreen Multi-Touch books filled with interactive features, diagrams, photos, videos, and more. Browse your library on a beautiful bookshelf, tap a book to open it, flip through pages with a swipe or a tap, and bookmark or add notes to your favorite passages. Highlight your favorite passages and add notes with the built-in bookmarking features. Find a word, character, or phrase anywhere in your book with the built-in search feature. Use iBooks to have the text read aloud."

iMovie	installed and iPad app	"With a streamlined design and intuitive Multi-Touch gestures, iMovie lets you enjoy your videos and tell stories like never before. Add a video filter, animated title, and soundtrack to any clip. Enhance your movie with slow motion, fast forward, picture-in-picture, and split-screen effects. Create a soundtrack using built-in music and sound effects, songs from your music library, and your own narration. Fine-tune your soundtrack with audio controls including trim, split, duplicate, and fade. Choose from 14 trailer templates with stunning graphics and original scores by some of the world's top film composers. Share with friends and family by sending videos with Mail and Messages, publish to YouTube, Facebook, Vimeo, and CNN iReport."
Inkscape	installation	"Inkscape is an Open Source vector graphics editor, with capabilities similar to Illustrator, Freehand, CorelDraw, or Xara X using the W3C standard Scalable Vector Graphics (SVG) file format. Supported SVG features include shapes, paths, text, markers, clones, alpha blending, transforms, gradients, patterns, and grouping. Inkscape also supports Creative Commons meta-data, node editing, layers, complex path operations, bitmap tracing, text-on-path, flowed text, and direct XML editing. It imports formats such as JPEG, PNG, TIFF, and others and exports PNG as well as multiple vector-based formats. Inkscape's main goal is to create a powerful and convenient drawing tool."
Inspiration	installed and iPad app	"For visual mapping, outlining, writing and making presentations, use Inspiration® 9, the ultimate thinking and learning tool. Brainstorm ideas, structure your thoughts and visually communicate concepts to strengthen understanding with the Diagram and Map Views. To take notes, organize information, and structure writing for plans, papers and reports, use the integrated Outline View to focus on main and supporting ideas and to clarify thinking in written form. With Inspiration's Presentation Manager, transform your diagrams, mind maps and outlines into polished presentations that communicate ideas clearly and demonstrate understanding and knowledge."
InspireData	installed	"Students use InspireData® to investigate, analyze, and represent data and information in dynamic graphs and charts. InspireData tools make it easy to change variables and plot types so students can explore data in multiple, meaningful ways. This encourages them to investigate data analytically, ask more questions, and apply their understanding of the data to form better conclusions and continue exploration."
iPhoto	iPad app	"iPhoto stores all of the photos and video clips in the Photos app on your device automatically. You can also import photos into iPhoto from other devices and computers, other apps on the same device, or a digital camera (if you're using iPad). Photos and videos stored in iPhoto can be accessed and used in other apps. They can also be shared with family and friends in many ways."
iSpeech TTS	iPad app	"Type in text and listen with the iSpeech App. iSpeech converts text to speech with the best sounding voices anywhere. Simply enter any text and iSpeech will instantly read the words. "
iTunes	installed, web based, and iPad app	"iTunes is a media management software created by Apple, Inc. that can play both audio and video files on your computer."

iTunesU	Web based and iPad App	"iTunes U is the best way to create and experience courses on the iPad. The iTunes U app gives you access to complete courses from leading universities and other schools — plus the world's largest digital catalog of free education content — right on your iPad, iPhone, or iPod touch. Students participating in private courses can pose questions on the course or any post or assignment. Other students in the class can jump into the discussion and ask more questions or provide answers. Teachers and students can keep up with the conversation when they receive push notifications as the discussion progresses. Teachers can now create and update their courses using the iTunes U app on their iPad—getting started is fast, simple, and completely free."
IXL	Web based and iPad App	"IXL is a web based tool that makes learning a multi-sensory experience targeting learning in over 4,000 skills in math and English language arts. Interactive question types, vibrant graphics, and enchanting audio create an engaging learning environment that connects with students both mentally and physically. Students work at their own pace. Over 3,200 standards-aligned skills provide comprehensive coverage of K-12 math. Hundreds of colorful awards celebrate important milestones and motivate students. IXL's ELA program prepares kids to become confident communicators in school and life. Students are challenged to use fiction and non-fiction texts to work through problems like understanding textual context, identifying errors, and correcting grammatical mistakes."
Jing	installed	"Jing is a computer service that lets you capture basic video, animation, and still images, and share them on the web. Capture an image of what you see on your computer screen with Jing. Select any window or region that you would like to record, and Jing will capture everything that happens in that area. From simple mouse movements to a fully narrated tutorial, Jing records everything you see and do. Jing videos are limited to five minutes for instant, focused communication. Send your screenshots and videos all over the web and share through IM, email, social media, and more."
Keynote	installed and iPad app	"A slide based presentation program that allows you to create presentations with dynamic graphics, transitions, and embedded media. Apple's version of PowerPoint. Keynote for the iPad is capable of working with PowerPoint files as well."
Khan Academy	Web based and iPad App	"Khan Academy offers practice exercises, instructional videos, and a personalized learning dashboard that empower learners to study at their own pace in and outside of the classroom. We tackle math, science, computer programming, history, art history, economics, and more. Our math missions guide learners from kindergarten to calculus using state-of-the-art, adaptive technology that identifies strengths and learning gaps. "

Kidspiration	installed and iPad app	"Using visual thinking methodologies, Kidspiration provides a cross-curricular visual workspace for K-5 learners. Students combine pictures, text, numbers and spoken words to develop vocabulary, word recognition, reading for comprehension, writing and critical thinking skills. Kidspiration works the way students think and learn and the way teachers teach. As students make visual connections, they build fundamental skills in reading, writing, math, science and social studies. Kidspiration offers activities in all curriculum areas, so students use visual learning naturally and confidently. Kidspiration helps students develop strong thinking skills, strengthen reading and writing skills, and build conceptual understanding in math."
Kindle	iPad app	"The Kindle app is optimized for the iPad, iPhone, and iPod touch, giving users the ability to read Kindle books, newspapers, magazines, textbooks and PDFs on a beautiful, easy-to-use interface. You'll have access to over 1,000,000 books plus hundreds of newspapers and magazines. Amazon Whispersync automatically syncs your last page read, bookmarks, notes, and highlights across devices (including Kindle), so you can pick up your book where you left off on another device."
Kurzweil	installed and web based	"Kurzweil is award-winning educational software designed to provide literacy support for those who struggle with literacy in the classroom, at home, or in the workplace. Built-in features for reading, writing and study skills helps students to become independent learners, active participants within inclusion classrooms or sheltered instruction programs; but most importantly, to keep up with peers and achieve their full academic potential. Students can use Kurzweil throughout their school career and beyond, utilize the literacy support for becoming lifelong learners. "
Lego Mindstorms	installed	"LEGO® MINDSTORMS® combines the versatility of the LEGO building system with advanced technology. Use the Lego Mindstorms kits to build robots and program their actions with the Lego Mindstorms software, an easy, intuitive and icon-based programming interface."
Lego WeDo	installed	"Software that is part of Lego WeDo kits. The kits challenge students to construct using Legos and program the Lego software to bring their creations to life with movement. The software uses WeDoLego, a drag and drop computer language Lego created, to program the kits. Students are tasked with different problems and apply critical thinking skills to program the software correctly to achieve the desired effect."
Lightbot	iPad app	"Lightbot is a programming puzzle game- a game whose game mechanics require using programming logic to solve levels. Simply guiding a robot to light up tiles and solve levels using commands, Lightbot cultivates a real understanding of procedures, loops, and conditionals for players. Educators around the world are choosing to use Lightbot first when introducing their students to programming, coding and Computer Science. Lightbot features 50 levels and 20 challenge stars to collect and is a must-have for puzzle enthusiasts of any age."

Microsoft Excel	installed	"Excel is an electronic spreadsheet computer program that is used for storing, organizing and manipulating data. It has the basic features of all spreadsheets using a grid of cells arranged in numbered rows and letter-named columns to organize data manipulations like arithmetic operations. It has a battery of supplied functions to answer statistical, engineering and financial needs. In addition, Excel can display data as line graphs, histograms and charts, and with a very limited three-dimensional graphical display. It allows sectioning of data to view its dependencies on various factors for different perspectives. "
Microsoft PowerPoint	installed	"PowerPoint is a presentation software program. It uses a graphical approach to presentations in the form of slideshows that accompany the oral delivery of the topic. It is the number 1 program used worldwide for presentations. Anyone can create stunning presentations that look like they were designed by a professional."
Microsoft Publisher	installed	"Microsoft Publisher is an entry-level desktop publishing application from Microsoft, differing from Microsoft Word in that the emphasis is placed on page layout and design rather than text composition and proofing. Templates get you started with fast and simple tools to help you create professional, personalized newsletters, brochures, post cards, and more."
Microsoft Word	installed	"Microsoft Word is a word processing program that offers several features to ease document creation and editing."
MinecraftEdu	installed	"Minecraft Edu is a digital, collaborative, three dimensional sandpit where students can explore ideas, test concepts and experiment with their designs. Minecraft EDU can be used across the curriculum in a variety of ways – learning how to read maps in Geography, how to build bridges in Engineering, or understand how ancient communities build their villages in History. The key to successful learning in Minecraft EDU is the ability to give students open-ended assignments which enable them to explore concepts such as volume, length, width, depth and perspective in a context which they already find engaging and motivating. The opportunities are endless. Minecraft EDU emphasises the importance of working collaboratively and communicating effectively with others. The game helps youngsters who struggle to communicate face-to-face and enables them to virtually speak to each other, even to correct their spelling and grammar in a friendly setting. Games Based Learning methods such as Minecraft EDU offer an educationally robust solution to not only engage and motivate learners, but also provide a wealth of scenarios to stimulate, deepen and accelerate learning. Learning is provided in an environment with which students are already familiar and it encourages them to make connections between formal and informal learning. This ability to draw on learning in a range of contexts will give students valuable and sought-after skills in order to develop digital literacies and improve life opportunities for all."
Missing	installed	"Missing is an interactive game or simulation (SIMS) lesson on internet safety. Missing is a two disk game that corresponds with a detective's notebook that the students fill out as they play the game. Students need to fill out all of the information to be able to progress to the next level."

MoMA Art Lab	iPad app	"MoMA Art Lab creates a creative and inspiring experience. The tools are easy to use and produce fascinating artwork. The six [now nine] activities based on the work of real artists make brilliant use of the iPad. Get creative and use the MoMA Art Lab app to make a sound composition, a shape poem, a group drawing, and more, then save and share your artwork (parental setting available). Explore how artists use line, shape, and color, discover artists' processes and inspirations, and create your own artwork inspired by MoMA's collection. Artists featured in the MoMA Art Lab app include Henri Matisse, Alexander Calder, Elizabeth Murray, and others."
Moodle	web based	"Moodle is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalised learning environments. It is a free open-source learning management system or e-Learning platform designed to help educators create online courses with a focus on interaction and collaborative construction of content."
Motic Microscope and Software	installed	"The Motic digital microscope has LED illumination. Coupled with a built-in digital camera chip, the DM-52 transmits live streaming images to a computer through a normal USB connection. Motic Play and Motic Educator are multi-language, multi-platform software that accompany the Motic Digital Microscope. They have a flash-based interface to guide students through the powerful features such as image capture, measuring, and editing. Capture still, live image or time lapse images. Measure lines, rectangles, circles, polygons, ellipses, rhombi and triangles. Image editing includes text insertion, painting, stamping, filters and rotate/flip. Images are stored in JPEG or .BMP files."
NASA	iPad app	"Come explore with NASA and discover the latest images, videos, mission information, news, feature stories, tweets, NASA TV and featured content with the NASA App for iOS. Access to view and save over 13,000 images. Watch over 11,000 on demand NASA Videos from around the agency. Read the latest news & feature stories. Discover the latest NASA mission information. Watch live NASA TV. Listen to Third Rock internet streaming radio. Get the latest launch information & countdown clocks."
National Geographic Kids	iPad app	"National Geographic Kids magazine for iPad is packed with engaging interactive content that boasts fun and learning for both kids and parents! The perfect magazine for ages 6 and up! Magazine features include animal stories, weird-but-true facts, lively "My Shot Minute" videos, photo galleries, word and photo games, quizzes, puzzles, jokes and more."
Naviance	Web based and iPad App	"Naviance is a college and career readiness platform that helps connect academic achievement to post-secondary goals. Our comprehensive college and career readiness solution empowers students and families to connect learning and life and provides schools and districts with the information they need to help students prepare for life after high school. It also allows students to create a plan for their futures by helping them discover their individual strengths and learning styles and explore college and career options based on their results."
Neighborhood Map Machine	installed	"Create, navigate, and print community maps while building essential skills! With this hands-on program, students create and navigate maps of their own neighborhoods, other communities, or imaginary places — all while learning challenging navigation concepts."

Notability	iPad app	"Notability is a powerful note-takinig app designed to annotate documents, sketch ideas, record lectures, and more. Notability is the one place to create, share, and manage your notes. It combines handwriting, typing, audio recordings, and photos so you can create notes that fit your needs. And with iCloud support, your notes are always available on iPhone, iPad, and Mac. Notability files can be shared between study groups and teams with Dropbox or Google Drive."
Numbers	installed and iPad app	"A powerful spreadsheet program that supports interactive charts and dynamic forms. Apple's version of Excel."
NVU	installation	"Nvu (pronounced N-view, for a "new view") makes managing a web site a snap. Now anyone can create web pages and manage a website with no technical expertise or knowledge of HTML. Finally! A complete Web Authoring System for Linux Desktop users as well as Microsoft Windows and Macintosh users."
OverDrive	Web based and iPad App	"OverDrive allows you to borrow eBooks, audiobooks, and stream video from your library if you have a valid library account. More than 30,000 libraries worldwide offer titles from OverDrive that are available 24/7. No more late fees. Titles are automatically returned. Place holds, create wish lists, and return titles easily."
Pages	installed and iPad app	"A full powered word processing and publishing tool that is simple to use and visually stunning. Apple's version of Microsoft Word."
Photoshop	installed and iPad app	"Adobe Photoshop is a graphics editing program used by professionals in the fields of graphic design, illustration, photography and photojournalism. Its uses range from full featured editing of large batches of photos to creating intricate digital paintings and drawings that mimic those done by hand. The creative possiblilities are limitless."
Phun/Algodoo	installation and ipad app	"Algodoo is a unique 2D-simulation software from Algoryx Simulation AB. Algodoo is designed in a playful, cartoony manner, making it a perfect tool for creating interactive scenes. Explore physics, build amazing inventions, design cool games or experiment with Algodoo in your science classes. Algodoo encourages students and children's own creativity, ability and motivation to construct knowledge while having fun. Making it as entertaining as it is educational. Algodoo is also a perfect aid for children to learn and practice physics at home. With Algodoo you can create simulation scenes using simple drawing tools like boxes, circles, polygons, gears, brushes, planes, ropes and chains. Easily interact with your objects by click and drag, tilt and shake. Edit and make changes by rotating, scaling, moving, cutting or cloning your objects. You can also add more physics in your simulation like fluids, springs, hinges, motors, thrusters, light rays, tracers, optics and lenses. Algodoo also allows you to explore and play around with different parameters like gravity, friction, restitution, refraction, attraction, etc."

Pinterest	Web based and iPad App	"Pinterest is a social network that allows users to visually share, and discover new interests by posting (known as 'pinning' on Pinterest) images or videos to their own or others' boards (i.e. a collection of 'pins,' usually with a common theme) and browsing what other users have pinned. Using a visual orientation, the social network is very much focused on the concept of a person's lifestyle, allowing you to share your tastes and interests with others and discovering those of likeminded people. The social network's goal is to "connect everyone in the world through the 'things' they find interesting." Users can either upload images from their computer or pin things they find on the web using the Pinterest bookmarklet. As with most other social networks, users can perform standard social networking functions such as following the boards of their friends, liking and commenting on other users' pins, re-pinning content to their own boards, sharing others' pins on Facebook and Twitter or via email, and even embedding individual pins on their website or blog."
Podcasts	iPad app	"The Podcasts app is an amazing way to discover, subscribe to, and play your favorite podcasts. Podcasts are shows, similar to radio or TV shows, that are produced by professionals or amateurs and posted to the Internet for download and listening or viewing. Explore hundreds of thousands of free audio and video podcasts in the Featured tab, or browse Top Charts to see what's hot right now. Add your favorite podcasts to personal stations that stay up to date when new episodes become available. For podcast listeners, podcasts are a way to enjoy great content from around the world. For podcast publishers, podcasts are a great way to reach a wide audience."
Popplet	iPad app	"Popplet is the simplest tool to capture and organize your ideas. With Popplet you can quickly jot down your ideas and sort them visually. It is a great tool for school and for learning in the classroom and at home. Students use Popplet to think and learn visually. By capturing facts, thoughts, and images, students learn to create relationships between them and generate new ideas. Popplet is also great for generating ideas. By brainstorming visually or jotting down notes, Popplet helps users organize their thoughts and generate their next big idea."
Prezi	Web based and iPad App	"Prezi is an online presentation tool that allows you to design your own distinctive, eye-catching presentations. Prezi's unique non-linear approach to presentations sets it apart from other tools. Your presentation will not be the same old slide-by-slide format that is commonly used today. Prezi creates non-linear, flowing presentations. You will create your presentation on a simple canvas, arranging your text and images in any way you like. Prezi lets you choose the order and amount in which each element will be zoomed into, creating a unique story-telling experience."
Puppet Pals	iPad app	"Create your own unique shows with animation and audio in real time! Simply pick out your actors and backdrops, drag them on to the stage, and tap record. Your movements and audio will be recorded in real time for playback later. This app is as fun as your own creativity. Act out a story of Pirates on the high seas, fight as scary monsters, or play the part of a Wild West bandit on the loose. You can even combine any characters however you want! Your creations are only limited by your imagination (and voice acting skills in my case). "

QR Codes and Readers	iPad app	"QR Codes (or Quick Response Codes, to give them their full title) are two-dimensional bar codes which when scanned with the camera of a mobile device such as an iPad, Android tablet or smartphone can transfer web links, text and email addresses amongst other digital content quickly and easily to users. QR Codes give readers an immediate opportunity to visit a website to find out more information about a range of facts, products and services. QR Readers are needed to "read" the code."
QuickVoice Recorder	iPad app	"QuickVoice Recorder is the most popular, full-featured iPhone/iPad/iPod voice recorder available. Record, playback and share ideas, voice memos, voice email, dictation, lists, meetings, classes, or entire lectures! "
Read With Me Fluency	iPad app	"Read With Me Fluency is the new iPad version of the award-winning online reading fluency assessment app, Read With Me. Now you can conduct oral fluency reading assessments, or running records in a faster, less-painful way. No more timers, paper, calculators or binders full of testing materials. Import your own digital texts or take advantage of our own leveled library of passages aligned to the Lexile® Framework. Monitor your child or whole class of students' reading progress in terms of accuracy, fluency and benchmark goals. This iPad app takes the web version further by taking advantage of the front-facing camera to record a video session of the student reading a text you assign. "
Schoology	Web based and iPad App	"Schoology is an online learning, classroom management, and social networking platform that improves learning through better communication, collaboration, and increased access to curriculum and supplemental content. It is a dynamic, intuitive, and user-centric learning management solution focused on making improvement accessible in diverse educational environments. With custom webpage and content creation, interactive collaboration capabilities, and seamless, third-party application integration, Schoology empowers educators, inspires students, and simplifies administrative tasks across the board."
Scratch	installed, web based, and iPad app	"With Scratch, you can program your own interactive stories, games, and animations — and share your creations with others in the online community. Scratch helps young people learn to think creatively, reason systematically, and work collaboratively — essential skills for life in the 21st century. The ability to code computer programs is an important part of literacy in today's society. When people learn to code in Scratch, they learn important strategies for solving problems, designing projects, and communicating ideas."
Scribble Press	iPad app	"Scribble Press for iPad is a book creation platform that allows kids to create and share their own stories with hundreds of great drawing and writing tools. Upload your books to your iBooks library! Scribble Press for iPad makes it easy to create an ebook – either write your own or use one of over 50 story templates. How about "My Babysitter is a Zombie" or "The Dog Ate my Homework"? From serious to seriously fun, you can make a book about any topic and instantly share with friends anywhere in the world via email, Twitter or Facebook. Scribble Press is dedicated to inspiring and empowering all kids to create and share their stories. Scribble Press for iPad takes the fun of doodles and imagining and turns it into the satisfaction of creating a finished story. "

Senteos and Software	installed	"The Senteo™ interactive response system is an assessment tool designed to enhance learning. You can pose questions during your presentation or lesson to make sure your audience is on track, or you can create a question set and use it as a formal assessment tool."
Show Me	ipad app	"ShowMe allows you to record voice-over whiteboard tutorials and share them online. It's an amazingly simple app that anyone can use, no matter how young or old! Record your ShowMe tutorial right away — no manuals or complicated menus needed. Drop in images onto the whiteboard. Easily switch between drawing and erasing (as well as pausing and playing) to make your ShowMe flow from concept to concept. You can make your ShowMe as long or as short as it needs to be, and record as many ShowMe's as you want. Once you're finished recording, upload your ShowMe to share with the community (or keep it private if you prefer)."
Skitch	iPad app	"Skitch gives you all the tools you need to visually communicate ideas, share feedback and collaborate with friends and co-workers. Use an existing image or capture a new one, then add shapes, write on it, draw on it, annotate it any way you like, and save it to your Evernote account so that it is available everywhere Evernote is."
Skype	installed and iPad app	"Skype is a telecommunications application software that specializes in providing video chat and voice calls from computers, tablets and mobile devices via the Internet to other devices or telephones/smartphones. Users can also send instant messages, exchange files and images, send video messages and create conference calls. "
SMART Tools	installed	"SMART Notebook software provides the tools to create and deliver engaging, interactive learning experiences across grades, subjects and learning styles. Teachers create high-impact lessons, access high-quality education content and engage students with unique interactive learning. SMART Tools record and replay lesson activities without leaving SMART Notebook. SMART Notebook Recorder helps create resources for students to learn at their own pace, inside or outside the classroom. A great tool for flipped classrooms, with small file sizes that make sharing easy."
Snapguide	iPad app	"Snapguide is a beautiful, easy way to create and share how-to guides complete with pictures, videos, and captions.. Discover new recipes, DIY projects, fashion ideas, and tech tips. Create your own guides and share what you love doing with your friends on Twitter, Facebook, email and more. "
Socrative	Web based and iPad App	"Socrative lets teachers engage and assess their students with educational activities on tablets, laptops and smartphones. Through the use of real time questioning, instant result aggregation and visualization, teachers can gauge the whole class' current level of understanding. Socrative saves teachers time so the class can further collaborate, discuss, extend and grow as a community of learners."

Stationary Studio	installed	"Stationery Studio's curriculum-based designs inspire young learners to write, research, explore, and create a product of which they are proud. Students bring their own individual style to the writing process and experience success. These positive experiences prepare students for a lifetime of learning and encourage all learners to reach their true potential. Stationary Studio ignites students' writing with curriculum-based images, lessons, and activities designed to engage them in personalized learning. Builds literacy skills and supports differentiated instruction. Promotes writing in math, science, social studies, and language arts with standards-aligned activities. Motivates students to publish books, essays, reports, letters, and more. "
Stop Motion Animation	iPad app	"Stop Motion Animations let you create beautiful stop motion animated movies anywhere instantly on your device. Everything you need is right at your fingertips. It's simple to use, deceptively powerful and insanely fun to play with. Create fantastic movies your friends will enjoy or share it with the world on YouTube, Facebook and other sites. Cool themes, titles and sound effects are easy to add, too."
Storia	iPad app	"Working in close collaboration with the reading experts at Scholastic, Storia is a FREE teacher-recommended eReading App designed to engage kids of all ages and reading levels. Storia's exciting digital experience offers fun, age-appropriate learning activities along with a growing collection of the just-right titles kids love, from the award-winning authors they want to read. Storia allows parents and teachers to set up personalized bookshelves for assigning the new eBooks they purchase, and for easily following a child's reading progress by tracking the books he or she reads and their time spent reading."
Storybook	installed	"Storybook enables you to organize all the elements regarding your book, namely characters, locations and different plots, including main story and secondary threads. Storybook defines and configures each element on their own, which makes the whole job much easier because it enables you to have a clearer view of your book's structure. Plus, Storybook lets you have multiple active projects (books) as you want, and also organize elements on its interface by following color codes. Bear in mind that this is no word processor. It's more of an organized database where you keep small bits of information which, once properly developed and linked together, will produce a book."
Storykit	iPad app	"Create an electronic storybook. Write some text. Illustrate by drawing on the screen, taking a photograph of something you see, or drawing on paper and then photographing the paper, or attaching photos from your album. Sounds can be recorded for telling your story or as sound effects. Layout the elements of your story (text boxes, images, and sound clips) freely by dragging them or pinching to resize. Add, reorder, or delete pages from your book. Your story is always saved in your iPhone. Carry it with you and work on it any time. Upload your story to the StoryKit web server and email a link to the story from within the app. No account is necessary. Stories are private. "
Tabletop Jr.	installed	"Tabletop Jr. gives students the power to categorize and measure, organize and arrange, represent and interpret, and graph and analyze data. It offers a new way to interact with data and information by animating data and creating engaging visual environments. Tabletop Jr. helps students develop skills fundamental for data analysis and essential for literacy in an information age."

Tellagami	iPad app	"Tellagami is a mobile app that lets you create and share a quick animated video called a Gami. A Gami can be an exciting tweet or status update. It can be a fun way to tell a story. It can be a thank you message or a vacation postcard. It can be a birthday greeting, party invite or cool way to share photos. Customize a character and choose your background. Record your voice or type a message for your character to say. Share your Gami on Facebook, Twitter or send via text or email."
Tesselations	installed	"Interactive software to help students understand and create tessellations. A tessellation is created when a shape is repeated over and over again covering a plane without any gaps or overlaps."
Timeliner	installed	"Timeliner is a powerful and intuitive software program students use to organize data—on multimedia timelines, sequences, and cycles—to see the connections, and transform a world of information into real knowledge. It is an intuitive, all-in-one tool that allows users to visually organize any sequential information on a horizontal, vertical, or circular sequence in just minutes. Timeliner automatically plots the events in proportional distance to each other. Using the formatting tools and library of over 1000 media files, students can express their creativity and fully engage with the curriculum."
Toon Boom Animation	installed	"Toon Boom Studio is the best 2D animation software to learn and create animation with. Ideal for students and hobbyists looking for an easy-to-use animation program, excellent for teachers and educational institutions, Studio makes all animation techniques accessible to users, offering them the most creative and rewarding experience. The benefits are: engage right and left sides of the brain, deepen understanding of any subject matter, develop soft skills, elevate common core competency, use animation as an equalizing factor, develop collaboration skills, and foster communication."
Twitter	Web based and iPad App	"Twitter is an online social networking tool in which users post 140 character updates, called tweets, of what is going on in their lives along with links to things they think are interesting, funny, or useful to their followers ("following" being essentially what "friending" is on other sites). People use twitter in many ways, some as a newsfeed by following prominent people or networks, some as a pseudo-chatroom by limiting their followers and whom they follow to close friends and family, and some as a microblog for updating people about the work they are doing and their personal lives."
VoiceThread	Web based and iPad App	"VoiceThread is an interactive collaboration and sharing tool that enables users to add images, documents, and videos, and to which other users can add voice, text, audio file, or video comments. You can post your VoiceThread on your website or save it to an MP3 or DVD. A VoiceThread is an online media album that can hold essentially any type of media (images, documents and videos) and allows people to make comments in 5 different ways - using voice (with a microphone or telephone), text, audio file, or video (with a webcam) - and share them with anyone they wish. A VoiceThread allows group conversations to be collected and shared in one place, from anywhere in the world. It can be used forcollaborative digital storytelling at ALL levels of the school. "

WavePad	iPad app	"A free sound editor for recording, editing, adding effects, and sending audio, WavePad allows you to record voice or music, then edit the recording and add effects to achieve high quality audio recordings. Work within audio waveforms to make selections for quick editing, such as inserting recordings from other files, or apply effects like the high pass filter to clarify audio quality. WavePad makes it easy to store or send recordings so they are readily available wherever they are needed."
Weebly	Web based and iPad App	"Weebly is one of the easiest website builders in the market. They allow you to drag and drop content into a website, so it's very intuitive to use. By using Weeby's website building elements, you can literally drag them into your website and have a website built relatively quickly, and painlessly. Weebly's elements include pictures, paragraphs, videos, buttons, maps, contact forms – basically all the basics for website building."
Windows Movie Maker	installed	"Windows Movie Maker is a freeware video editing software by Microsoft. It is a part of Windows Essentials software suite and offers the ability to create and edit videos as well as to publish them on OneDrive, Facebook, YouTube, and Flickr."
Windows Photo Story	installed	"Photo Story 3 includes features that enable you to create a slide show with your digital pictures, edit your pictures, create your story with original music, add narration, and share them with your family and friends."
WordPress	Web based and iPad App	"WordPress is a free, Web-based software program that anyone can use to build and maintain a website or blog."

G. SOFTWARE AND APP INVENTORY BY SCHOOL

Below is a list of software installed in common areas and on shared hardware at the High School. The software listed is in addition to the BH

C108 - Business and Programming Lab	Aqua, Pink, Sage, Orange, Lemon & Lime Laptop Carts	Science - Silver Laptop Cart	Science - Blue, Green, Red Carts	C109 - Drafting Lab	A109 - Art Lab
BHS Base Template	BHS Base Template	BHS Base Template	BHS Base Template	BHS Base Template	BHS Base Template
Automated Accounting 8.0	Inspiration 8	ActivePad	Active Pad	Cadsoft Envisioneer Construction Suite 5	EMC Resrospect Express HD
AVG Antivirus instead of NAV	Inspiredata 1.5	Dashboard	Biosphere	Autodesk Design Review 2009	SanDisk Transfer Mate
Command Prompt	Logitech QuickCam	Interactive Physics 5	Dashboard	Turbo Floor Plan Home Designer	ABBYY Finereader 6.0 Sprint
FFR_Keymap	Nutritional Software Library	LabQuest Emulator	Faces	7500 Home Plans	Honestech Claymation Studio 2.0
Finale NotePad 2002		LoggerPro 3.8.4	Interactive Physics 2k	Lego MindStorm NXT 2.1	Adobe CS3
Finale NotePad 2006		Motic Images Plus 2.0	LoggerPro 3.8.4	CREO 2.0	After Effect
GAZ Deluxe Shareware		Video Toolbox	Motic	3D Cube	Bridge
IrfanView		Lego MindStorm NXT 2.1	RoboLab		Device Central
Jockey32			Logger Pro Lite & LabQuest		Dreamweaver
Micro-Error Checker 98					Fireworks
MinGW					Flash Pro
Notepad++					Illustrator
Office 2007					InDesign
putty.exe					Photoshop
QVT Term					Premiere Pro
Telnet					Adobe CS6

Typing Master 2002 and Pro				
UltraEdit				
WinRAR				
The Lost Keys				
MicroType 5				

S Base Template software found on the Base Software tab of this worksheet. Some of these areas are department/program specific and t

D101 - Music Midi Lab	C209 - Foreign Language Lab	H205 - Computer Lab	E201 - Yearbook Room	Science Teachers' Workstations	Math Teachers' Workstations
BHS Base Template	BHS Base Template	BHS Base Template	BHS Base Template	BHS Base Template	BHS Base Template
Finale Notepad 2006	Sony Soloist 7.4.5	Finale Notepad 2008		Bluetooth (for Smart Slate Tablet)	Exam View test generator
Finale Notepad 2008	Grammar Word Tutor (include French and Spanish)	Logger Lite & LabQuest		Boardworks	HS Activity Generator
HomeStudio 2004		LoggerPro 3.8.4		ClocX	LaxTXT
Mixercraft 5		Nutritional Software Library		ExamView Pro - test generator	Mathtype 6.9
Teaching with Reason 3.4.0				Logger Pro 3.8.4	McDougalLittle Test Generator
Roxio Premier 9.0.116				TestBuilder	SmartNotebook with Math Tools
Synchroneyes 7.0				Logger Pro Lite & LabQuest	Texworks

the additional software reflects the use of these areas/machines.

Foreign Language Teachers' Workstations	Guidance Counselors' Workstations	BHS SPED Administrators	Administrator Laptops	Teacher Macbooks	Computer Department
BHS Base Template	**BHS Base Template**	**BHS Base Template**	**BHS Base Template**	Mac Office2011	**BHS Base Template**
Grammar Word Tutor (include French and Spanish)	Naviance (docufide virtual printer)	WIAT-III Scoring	KVS	iMovie, Keynotes, Pages, Numbers	Citrix XenCenter
		BASC-II	CS3 Master Suite	Smartnotebook 10.8 for Mac	FileMaker Pro 5
		WISC-IV	Office 2007	ClamX (AV)	KVS
		PsychCorpCenter		Google Chrome & Earth	PCAnywhere
		Conners 3		Adobe Reader	Symantec Ghost
				Firebox	
				First Class	

Below is a list of iPad apps that were installed on BHS iPads for the 2014-2015 school year. Additional apps are often added during the course of the school year by students, teachers and the tech staff.

App Name	Cost
Adobe Ideas	Free - new app (Art)
Adobe Photoshop Express	Free
Animoto	Free
AP Exam Prep Environmental Science	$5.49
Audioboo	Free
Blogger	Free
Breathe 2 Relax	Free - new app (Guidance)
Brushes 3	Free - new app (Art)
Calculator Pro	Free
Chrome	Free
Clinometer HD	Free - new app (Science)
CloudOn	Free
Desmos	Free - new app (Math)
Djembe	Free - new app (Music)
Dragon Dictation	Free
Drawcast	Free
Dropbox	Free
Easybib	Free
eClicker Audience	Free
eClicker Presenter (teachers only)	$7.49
edmodo	Free
Educreations	Free
EMD PTE	Free
Evernote	Free
Find My iPhone	Free
FirstClass	Free
Flashcardlet	Free
Follett Digital Reader (a.k.a. CafeScribe)	Free
GarageBand*	Free
Geogebra	Free - new app (Math)
GOODREADER	Free (Dix)
Google Docs	Free
Google Drive	Free
Google Earth	Free
Google Sheets	Free
Google Slides	Free
Hands on Equations 1 & 2	$2.99
iBooks	Free
iMovie*	$2.49
Inspiration Lite (a.k.a. Inspiration Maps)	Free
iSpeech TTS	Free
iTunes U	Free
Keynote*	$4.99
Khan Academy	Free
Kindle	Free
LAMP Words for Life	$199
Metronomoes	Free - new app (Music)
MotiConnect	Free - new app (Science)
Music Tutor	Free - new app (Music)
My Homework	Free - new app (Science)

Nasa	Free - new app (Science)
Naviance Student	Free - new app (Guidance)
Notability*	$2.49
Nuclear	Free
Numbers*	$4.99
Overdrive	Free
Pages*	$4.99
Photosynth	Free
Pinterest	Free - new app (Dowler)
Pocket Latin Lite	Free
PodCasts	Free
Prezi for iPad	Free
Procreate	$2.99
QR Code Reader by Scan	Free
SAT UP	Free
Schoology	Free
Science@VL (a.k.a. Science Glossary)	Free - new app (Science)
Shortcut to https://i4class.com/login	Free (Peters)
Shortcut to: Naviance, Moodle, Bedford Google Apps, Aspen	Free
ShowMe	Free - new app (Science)
Sketchpad Explorer	Free
Skitch	Free
Skype	Free
SMART Notebook - (Math Budget)	$3.50
Snapguide	Free
Socrative Student Clicker	Free
Socrative Teacher Clicker (teachers only)	Free
Stop Motion Animation	Free - new app (ELL)
TeachPoint (teachers only)	Free
Toontastic	Free
Tuner Lite	Free - new app (Music)
Twitter	Free
Vernier Graphical Analysis	Free
Vernier Video Physics	$2.49
Voice Record Pro	Free - new app (Music)
VoiceThread	Free
Wave Pad	Free - new app (Art)
Wolfram Alpha Viewer	Free - new app (Science)
WordPress	Free

Below is a list of software installed in common areas and on shared hardware at JGMS, Facilities, and Central Office. The software listed is i
of these areas/machines.

Library	B224 - Library Lab	B216 - Computer Lab	Cyan Laptop Cart	Bronze Laptop Cart	Magenta Laptop Cart	D211 - Tech Ed Salt Laptop Cart
Base Template	Base Template	Base Template	Base Template	Base Template	Base Template	Base Template
iTALC	Learn to Play Bridge 1& 2	Photoshop Elements 2.0	Photoshop Elements 2.0	EuroTalk French	Photoshop Elements 2.0	3D Home Architect Deluxe
	iTALC	Mapmakers' Toolkit	RoboLab	EuroTalk Spanish	Thinking Reader	West Point Bridge Design 2007
		ScopeMaster	Thinking Reader: Bud, Not Buddy	Missing	TimeLiner 5.0	Punch Super Home suite
		The Notebook Trek 6-8	Thinking Reader: The Giver	Cyber ED-DNA Molecule of Life (#13 & 17)		Building Homes of our Own 2.0
		The Writing Trek 6-8	TimeLiner 5.0	Photoshop Elements 2.0		Robo Lab 2.5.2
		Easy Planner (Math: Algebra1, Algebra2 & Geometry)	Trek Notebook 6-8	Reading SOS (#10, 11, 12)		West Point Bridge Design 2006
		iTALC	Writing Trek 6-8	Science Court (#10)		Lego Mindstorms RoboLab
				Thinking Reader: Esperanze Rising (#11-25)		Mavis Beacon v15
				Thinking Reader: My Brother Sam is Dead (#1-11)		Pro/Desktop
				Video Discovery Water Planet (#1-5)		CREO 2.0

in addition to the JGMS Base Template software found on the Base Software tab of this worksheet. Some of these areas are department/pro

D211 - Tech EdLavender Laptop Cart	C240 - Multi Purpose Room	Math Teachers' Workstations	Foreign Language Teachers' Workstations	JGMS SPED Administrators	Central Office - SPED Office	Central Office - Business Office
Base Template	Base Template	Base Template	Base Template	Base Template	Base Template	Base Template
CREO 2.0		Easy Planner (Math: Algebra1, Algebra2 & Geometry)	EuroTalk French	WIAT-III/IV Scoring	KVS	Office 2007
Punch Super Home suite			EuroTalk Spanish	BASC-II		PageScope
				WISC-IV		CyberQuery
				PsychCorpCenter		KVS
				Conners 3		Able To Extract
				Co Writer Solo (1 License)		Adobe Pro 10
				EmWave Desktop (1 License)		QuickBook 2009

gram specific and the additional software reflects the use

Central Office - Superindentant's Office	Facilities Department	Cafateria Office
Base Template	Base Template	Base Template
Office 2007	KVS	NutriKids
KVS	ID Printing Software	DiTech
	S2	

Below is a list of iPad apps that were installed on JGMS iPads for the 2014-2015 school year. Additional apps are often added during the course of the school year by the Tech staff.

App Name	Cost
Adobe Ideas	Free
Adobe Photoshop Express	Free
Animoto	Free
Audioboo	Free
Blogger	Free
Book Creator	$2.49
Brushes 3	Free
Calculator Pro	Free
Chrome	Free
CloudOn	Free
Djembe	Free
Dragon Dictation	Free
Drawcast	Free
Dropbox	Free
EarthViewer	Free
Easybib	Free
eClicker Audience	Free
eClicker Presenter (teachers only)	$7.49
Edmodo	Free
Educreations	Free
EMD PTE	Free
Evernote	Free
Explain Everything*	$1.99
Find My iPhone	Free
FirstClass	Free
Flashcardlet	Free
Follett Digital Reader	Free
GarageBand*	Free
Google Docs	Free
Google Drive	Free
Google Earth	Free
Google Sheets	Free
Google Slides	Free
iBooks	Free
iMovie*	$0.00
Inspiration Lite	Free
iPhoto*	
iSpeech TTS	Free
iTunes U	Free
Keynote*	$0.00
Khan Academy	Free
Kindle	Free
Metronomoes	Free
Music Tutor	Free
NASA	Free
Notability*	$2.99
Nuclear	Free
Numbers*	$0.00
Overdrive	Free

Pages*	$0.00
Photosynth	Free
Pinterest	Free
PodCasts	Free
Prezi for iPad	Free
QR Code Reader by Scan	Free
SAT UP	Free
Schoology	Free
Shortcut to: Naviance, Moodle, Bedford Google Apps, Aspen	Free
ShowMe	Free
Sketchpad Explorer	Free
Skitch	Free
Skype	Free
Snapguide	Free
Socrative Student Clicker	Free
Socrative Teacher Clicker (teachers only)	Free
Stop Motion Animation	Free
Toontastic	Free
Tuner Lite	Free
Twitter	Free
Voice Record Pro	Free
VoiceThread	Free
Wave Pad	Free
WordPress	Free

Below is a list of software installed in common areas and on shared hardware at Lane. The software listed is in addition to the Lane Base
Software tab of this worksheet. Some of these areas are department/program specific and the additional software reflects the use of thes

Computer Lab	Teacher Workstations and Student Machines	Lane Multi-Purpose Room	Lower & Upper West Wings	Netbooks	Purple Cart (Library Laptops)	Navy Cart
Base Template	Base Template	Base Template	Base Template	UBUNTU O/S	Base Template	Base Template
Lego WeDo	Diorama Designer			3D chess	Lego WeDo	
Mapmaker's Toolkit	Factory Deluxe			adobe / flash		
	Kaleidomania			aisle riot solitaire		
	Kid Pix Deluxe			boat senario		
	Mapmaker's Toolkit			brasero disc burn		
	Rainforest Designer			byobu Manger		
	Seasons			calibre		
	Shapes within Shapes			camer monitor		
	Smoking Alone			cantor		
	Tessellation			class room counter		
	Time Liner 5			compiz		
	Work and Simple Machines			language support		
	Lego WeDo			linthesia little wizard		
				lives		
				lrf viewer		
				marble		
				lrf viewer		
				menu editor		
				metacity		
				mines move		
				mypaint		
				onboard		
				java 6		
				open office		

				orca screen reader and magnifier		
				parley		
				pdf video editor		
				prism		
				pv scrabble		
				python v.2		
				quadrapassel		
				roemote desktop		
				rythambox music player		
				skencil		
				sound records		
				step		
				stellariem		
				sudoku		
				sudoku		
				synaptc page mananger		
				tomboy notes		
				tuvo math		
				xara xtream		

Template software found on the Base
areas/machines.

Lane SPED Administrators	Student Office
Base Template	Base Template
WIAT-III Scoring	KVS
BASC-II	
WISC-IV	
PsychCorpCenter	
Conners 3	
Speaking Dragon 11	

Below is a list of iPad apps that were installed on Lane iPads for the 2014-2015 school year. Additional apps are often added during the course of the school year by the Tech staff.

App Name	Cost
Animation	
Animot	
Aurasma	
Book Creator	$2.49
BrainPop	
Chrome	
Divisibility Dash	
DoodleBuddy	
Dragon Dictation	
DropBox	
eClicker	
Educreations	
EFlashcards	
Evernote	
Explain Everything	$1.49
Flashcardlet	
Fractions	
Garageban	
Google Drive	
Google Earth	
HopScotch	
iBooks	
iMovie	
iPhoto	
IXL	
Keynote	
Khan Aacademy	
Math Man	
MoMA Art Lab	
Number	
Pages	
Penultimate	
Photochop	
PicRotate	
Popplet	$2.49
PS Express	
Puppet Pals	
QR Reader	
Skitch	
Skype	
Socrative	
Squeeze	
Stop Motion	

Story Kit	
Tellagami	
WordPress	
YouTube	

Below is a list of software installed in common areas and on shared hardware at Davis. The software listed is in addition to the Davis Base Template software found on the Base Software tab of this worksheet. Some of these areas are department/program specific and the additional software reflects the use of these areas/machines.

Computer Lab	Pods (Green, Blue, Yellow, Red)	Library	Teachers' Workstations	Davis SPED Administrators	Student Office	Cafeteria POS
Base Template	Base Template	Base Template	Base Template	Base Template	Base Template	NutriKids POS software
EasyBook	BoardMaker (1 License: Blue Pod)	Clock Shop	Smart Notebook 11.4 (for Epson Projectors)	Star Words Timed Reading Practice CDs (6)		
Boadmaker (1 license)	Lego WeDo (Blue Pod)	Coin Critters	Smart Table ToolKit	BASC 2		
TableTop Jr.	Kidspiration (Green Pod)	MapMaker ToolKit	Clock Shop	CIBS-R Standardized Scoring Conversion		
Clock Shop	Clock Shop		Coin Critters	Teaching Resources Phonics Lesson Grade 2		
Coin Critters	Coin Critters		MapMaker ToolKit			
Lego WeDo	HyperStudio		Teaching Resources Phonics Lesson Grade 2 (2nd Grade Teachers Only)			
Golden Books Encyclopedia	Franklin Learns Math					
Kidspiration 2	Trudies Time and Place (XP only)					
Franklin Learns Math	TableTop Jr. (Green Pod)					
Trudies Time and Place	Inspire Data 1.0a					
Inspire Data 1.0a	MapMaker ToolKit					
Neighborhood Map Machines						

Flip Boom Cartoon					
MineCraftEdu					
MapMaker ToolKit					

MineCraftEdu

Below is a list of iPad apps that were installed on Davis iPads for the 2014-2015 school year. Additional apps are often added during the course of the school year by the Tech staff.

App Name	Cost
Addition	
Animoto	
Blogger	
Book Creator	$2.49
Book Creator	
Calculator iPad	
Chrome	
Dictation	
Doodlecast Pro	$4.99
Doodlecast Pro	
Drive	
Dropbox	
Educreations	
Find iPhone	
Fluency Timer Pro	
Geoboard	
Google Earth	
Google Maps	
iMovie	
iPhoto	
Keynote	
Kidblog	
Kids Planet Discovery	
Kidspiration	
Kindle	
KnowYourMathFacts	
KnowYourMathFactsFree	
Lightbot - One Hour Coding	
Math Cards	
MathLands	
NASA	
National Geographic Kids	
Number Line	
Number Pieces	
Number Pieces Basic	
Number Rack	
Numbers	
Pages	
Pizza	
Prankster Planet	
PuppetPals HD	
QRReader	
QuickVoice	
Raz-Kids	
RWM Fluency	
Scribble Press	$1.99
Scribble Press	
ShowMe	
Skype	
Snapguide	

Storia	
Subtraction	
The Foos	
Toontastic	
VoiceThread	
Weather	
WordPress	