

Technology Committee

Name	Position
Connie Bompadre	Assistant Superintendent
Andrew Butler	PHMS Tech Ed Teacher
Edward Duffy	HS English Teacher
Holly Dunleavy	PHMS Computer Teacher
Margaret Henry	Loomis 3 rd Grade Teacher
Josephine Johnston	Supervisor of Science, FCS, Business & Technology
Chris Lee	Director of Technology
Andrew Lofaro	HS Social Studies Teacher
Larissa Macheski	Culbertson 5 th Grade Teacher
Melissa O'Donnell	Loomis Librarian
Samantha Partridge	Russell 5 th Grade Teacher
Gregory Puckett	HS Principal
Megan Smith	Worrall Special Ed Teacher
Steve Subers	PHMS Principal
Don Tabar	HS Assistant Principal
Jim Wigo	Culbertson Principal

Vision: Create a new vision of learning and teaching in the age of the internet

- Goals:**
1. Increase student achievement
 2. Increase rigor
 3. Personalize learning
 4. Develop essential skills in problem-solving, critical thinking, creative collaboration and global communications

Learning is Changing in Schools and Classrooms

Curriculum – on-line textbooks, accessibility, equal access to resources

- K - 5 Reading Series (Reading Wonders McGraw Hill Education)
- Middle School Science (Pearson InterActive Textbooks)
- High School Science Online Textbooks
- Google Classroom
- Pearson SuccessNet (Math and Science)
- Middle and High School Math Flourish (Kendall Hunt Learning Network)
- Middle School Math Success for ALL Foundation Member Center (The Hub)
- Google Apps for Education
- Achieve3000 (Differentiated online instruction to improve reading and writing skills)
- PA Department of Education Standards Aligned System
- PA Learns (iTunes U Keystone Courses)

Instruction – Engagement & Relevance

- Google Apps For Education
- Interactive games and websites
 - PhET (Interactive simulations for science and math)
 - First in Math Online Program
- Communication Tools
 - Edmodo, Wikis, EdPuzzle, Schoolology
- Interactive Instruction

- SMART Notebook Software (SMART boards)
- ActiveInspire Software (Promethean Boards)
- Vernier Software (HS science and STEM concepts)

Assessment – Diagnostic, Formative, Summative, Immediate Multilayered feedback

- Formative/Informal
 - Several new technologies incorporate different ways to formatively assess student performance. These technologies are designed to support:
 - rapid assessment of student understanding
 - timely and targeted feedback, scaffolding of learning
 - Interactive learning and assessment of higher-order skills
 - Tracking of student learning in different contexts and over time
 - Both Math and Reading Series have online assessments
 - Game-based Classroom Response Systems
 - Kahoot and Socrative
 - Plickers (allows teachers to collect real-time formative assessment data)
 - Classroom Diagnostic Tools
 - Study Island Edmentum (data-driven standards mastery program)
- Summative/Formal
 - Standardized testing (online)
 - PSSA
 - Keystone

Research

- Reframing the traditional educational structure and changes the culture of learning
 - Students take responsibility of their own learning by encouraging them to be collaborators, contributors, and researchers (November, 2012)

Table 1.1: How the Digital Learning Farm Compares to the Traditional Educational Model

Traditional Educational Model	Digital Learning Farm Model
It features the same prescribed assignments and rubrics for all students.	Students design more of their own assignments and rubrics.
There is an audience of one (the teacher).	It has the capacity for a worldwide, authentic audience.
Reward and punishment are external (in the form of a grade).	There is opportunity for more intrinsic rewards.
Student work is not leveraged to help all students learn.	All students contribute to the learning processes of the entire class and to learners around the world.
The critical skill is to know how to be taught.	The critical skill is to learn how to learn.
The limit of learning is what the teacher already knows.	Students research content beyond the teacher's knowledge.
The curriculum is covered regardless of students' mastery.	There are more opportunities for mastery.
Students rely on their teacher for help.	Students rely on their teacher and the whole class for help.
Parents have limited access to day-to-day student creativity.	There is an increased opportunity for parents to see creative student work.
Technology reinforces the current industrial culture.	Technology is used as a transformational tool to change the culture of teaching and learning.

- Shifting emphasis from content to skills
 - “When education is content-based, the primary skill being practiced is memorization: you learn it, you repeat it, and you’ve shown mastery of the information. Technology shines a light on this weakness in education because it makes that basic content incredibly easy to access. When students are liberated from the monotony of memorization, they have time to learn the deeper frameworks and contexts that give facts and figures meaning. Then they can apply these understandings to any content they encounter in the future. The skills that they learn become the enduring understandings of their education.” (Pahomov, 2014, p. 4-5)
- Increase student engagement
 - Technology-based games has consistently shown positive results regarding motivation, persistence, curiosity, attention, and attitude toward learning (Shin, Sutherland, Norris, & Soloway, 2012).

Use of Data

- Google Apps for Education
 - Teachers can easily share information about students in real-time and provide continuous data to improve instruction
- Classroom Diagnostic Tools
- eMetric (provides quick, easy, and secured access to student performance results on Keystone Exams and PSSAs)
- Infinite Campus
 - Data Visualization (allows school leaders and educators to analyze student data to help guide teacher instruction)
- PVAAS (PA Value-Added Assessment System)

Students as Researchers, Global Communicators & Collaborators

- Google Apps for Education (GAPE)
 - Students can conduct research, create a product, and collaborate with other students using GAPE

Teachers as Facilitators

- Google Apps for Education
 - Using Google Docs to provide feedback and collaborate with students on writing assignments
 - Using Google Classrooms to facilitate online discussions and learning beyond the school day
- EdPuzzle (Online tool for Flipped Classrooms)
 - Allows teachers to make videos an interactive lesson

District Needs

Hardware/Software

- More computers for increased student access to technology
- A [device](#) that is compatible with Google Apps
- More reliable network (laptops) ✓

Curriculum/Programs

- Typing Program for Elementary Students
- Updating Curriculum for MS Computer Classes
- Redesign of HS Tech Ed & Business Ed Offerings
- Use of Apps (Chrome)

Increased Mobility – Anywhere Learning

Staffing: Targeted skills to support the increase in technology hardware and software across the district

Professional Development: Comprehensive Plan

Goals: 1. To establish and sustain the Train-the-Trainer Model in each school

Google-Members of the Technology Committee ✓

Reading Wonders-Curricular

Social Studies- Curricular

Smartboards/Promethean Boards - Technical skills

How to use a Tablet? - Technical skills

Infinite Campus (start with Administrators) ✓

Training for teachers - Many teachers are resistant to using technology or trying new technology because of the lack of opportunities for training. Teachers have voiced their frustration with expectations of technology without time in school for training. Teachers who are interested do not know who to ask or where to further their knowledge of technology.

Training for students - Many students do not know how to use Google Drive or they do not use it for school. With no consistency across the board with teachers using Google Drive, the teachers who use it typically have to teach students from the beginning level. Is there a way to build this in during freshman year or during orientation?

Opportunities for collaboration - There are very few opportunities to share websites or resources to other teachers in the building. We could really benefit from some opportunities for sharing and it could even encourage more teachers to seek out professional development outside of the school.

2. Follow the Comprehensive Plan

Instructional Technology

It is important for students to learn how to learn. Students want to have ownership in the learning process, and they want their work to have purpose (November, 2012). Through the use of technology, teachers can create experiences that engage students by enabling them to contribute to the curriculum as well as the community and in the process, develop essential skills in problem solving, critical thinking, creative collaboration and global communication. Through the use of technology as a tool, teachers can “redefine the role of the learner as contributor, collaborator and leader in the learning culture” (November, 2012, 6).

Implementation Steps:

Purchase the book, *Who Owns the Learning?* by Alan November for all teachers and administrators. Encourage teachers to try one new “thing” in their classrooms. ✓

Monitor Teacher Pilot Programs in each school (Tablets) ✓

Paxon Hollow Bring your own devices ✓

Redesign PH Computer Classes – Curriculum ✓

Expand/Redesign Business & Technology Courses at HS

Meet with a group of HS students in the fall for feedback ✓

Offer Summer Technology Workshops for Teachers ✓ *ongoing*

Design Professional Development Opportunities for Staff in Instructional Technology (Train-the Trainer Model-usage and curricular support)

Focus on Instructional Technology at Instructional Leadership Meetings (Administrators) ✓

Accountability: Students & Staff

Protocols for Students - Once students take out the computer, the teacher will track the computer number for that student. The computers will be checked for damage upon return. Any damages will be brought to the tech assistant's or building administrator.

Expectations for Teachers - Teachers are expected to review the list of computers at the beginning and the end of each year to make sure all computers are all accounted for. Any discrepancies should be reported to the tech assistant, who will then in turn report them to the principal.

Inventory - Each building will have a list of the make and model of each computer within their buildings. A spreadsheet will be created that will supply the district with the district label numbers of each computer for accountability purposes.

Scanners: The scanners will not be needed due to the district using labels for all of the computers.

District Responsibility - With increasing the availability of computing devices, the Marple Newtown School District has instituted an asset management system and procedures to manage and maintain the technology in the district and its schools.

The system is comprised of software, hardware and technology personnel who will routinely audit and record the assets in the district. The audits will occur twice during the school year (winter and spring break) and a summer audit. The school year audits will be visual inspections to make sure that carts are populated with their assigned devices and a report will be provided the building principals. The summer audit will be a "rebuild" of the carts where the mobile carts and its devices will be dismantled, updated with the latest district software

image and reassembled. Any changes to the carts inventory of devices will be reported directly to the building principal.

The main source of identification of devices will be the serial numbers of the devices which will be collected by the SchoolDude Asset Management system. This software system will record the hardware identification as well as usage information and be assigned to personnel, carts and or locations. Technology Department personnel will be directly responsible for the upkeep and maintenance of the asset information in the district.

Budget:

Hardware

The district currently has an approximate total of 2,100 devices ranging from desktops to laptop computers. This represents a 2:1 ratio of students to computers district wide. However, we would like to further improve computing availability at the building level by making sure, at the building level, the student to computer ratio is 2:1. Below you will see a projected plan starting with the 2015-2016 school year. You will see brief highlights of each lease but keep in mind that there are additional computer technology for staff, operational functions and group areas.

All prices and quantities are based off of current computer models and pricing available today. We are projecting the use of hybrid laptop devices that have touch capabilities to leverage the benefit of apps and other touch enabled software packages.

2015 – 2016 SY (Paxon Hollow Middle School) 645 Total Devices

Of those devices 645 devices, 390 of them are dedicated to both mobile and stationary labs, 330 and 60 respectively. In addition the middle school will received 122 devices dedicated for business and technology programs.

Total Lease Value: \$568,207.85 (\$113,641.57 per year for five years, this is a net increase to technology budget of \$50,000)

Increase in wireless access points at the middle school totaling: \$15,000 (No increase to the technology budget)

2016 – 2017 SY (Marple Newtown High School Phase 1 & Admin Center) 770

Total Devices

The High School will receive 400 devices dedicated for mobile labs in addition to 185 devices dedicated to technology and business programs.

Total Lease value: \$634,130 (\$136,098.01 per year for five years, no increase to the technology budget)

Increase in wireless access points at the HS totaling: \$25,000 (No increase to the technology budget)

2017 – 2018 SY (Marple Newtown High School Phase 2, Admin Center

Administrators, Russell and Worrall) 980 Total Devices

The High School will receive 300 devices dedicated for mobile labs.

Each elementary school will receive 275 devices dedicated for mobile labs

Total Lease value: \$779,000.00 (\$167,729.92 per year for five years, no increase to the technology budget)

Increase in wireless access points at the HS and elementary schools totaling: \$25,000 (No increase to the technology budget)

2018 – 2019 SY (Culbertson Elementary & Loomis Elementary) 910 Total

Devices

The High School will receive 250 Mobile devices dedicated for mobile labs

Each elementary school in this lease will receive 275 mobile devices each dedicated to mobile labs.

Total Lease Value: \$721,220.00 (\$155,291.55 per year for five years, no increase to the technology budget)

Increase of wireless access points at both elementary schools totaling: \$15,000 (No increase to the technology budget)

At the end of this leasing cycle the total district wide computer inventory will be approximately 3,305 which is a 36% increase compared to today's current inventory

Software

The district will utilize the extensive Adobe software suite at all of its schools. The annual cost for this software district wide is: \$8,700 (No increase to the technology budget)

Typing Pals typing education software will be used at the elementary schools at an annual cost of \$1,250 (No increase to the technology budget)

Professional Development & Curriculum Development

MS & HS Business & Tech Education Courses

Elementary Lessons to support Elementary Technology Standards (enhance productivity skills)

The Professional Development Committee (PDC) will guide the process for including technology within the scope of the comprehensive plan for the staff and students

Staffing - To be determined by the school board as the budgetary implications in regards to staffing is outside the scope of the technology committee

Implementation Timeline:

Short-Range Goals: 1. Google Apps for Education-District-wide ✓

2. Update Elementary Technology Standards ✓

3. Select Elementary On-line Keyboarding Program (*Typing Pal*) ✓

**4. Training on Typing Pal & Development of technology lessons
to support the technology standards**

5. Survey Students-HS Business Ed/Tech Ed & 8th Grade students

6. Update PH Curriculum for Computer Classes ✓

- Long-Range Goals:**
- 1. Curriculum/Programs- HS Business, Technology, Applied Arts**
 - 2. Survey Staff – Self-Reflection on Tech skills and needs (Yearly)**

SAMAR Model on integration of tech skills (teacher self-reflection) 2-3 minutes
 - 3. Review educational apps and processes for use of those apps**
 - 4. Consider increasing use of online professional development**
 - 5. Ongoing Professional Development**

Attachments:

Accomplishments by School

Letter GAFE (C.L.)

Elementary Technology Standards & Vocabulary

Data Sheet for HP ProBook

TECHNOLOGY ACCOMPLISHMENTS

Elementary Accomplishments

- Google Classroom – Google Classroom helps teachers create, assign, and collect student classwork and homework paperlessly
- Google Forms – Create reviews and surveys
- Stora School - Accessible eReading for every teacher and every student.
- Storyjumper - Create illustrated books with super easy tools.
- Photo Story 3 - photo presentation program
- Genius Hour - a movement that allows students to explore their own passions and encourages creativity in the classroom.
- Read Naturally - develop the reading skills (fluency, phonics, vocabulary, comprehension, spelling, and phonemic awareness) of struggling readers.
- FastMath – online practice math game
- Digital Microscope for the SmartBoard
- Kindergarten Earobics - multisensory reading intervention ...
- Discovery Ed – Educational Videos
- Go-Noodle – provides musical movement breaks that students find enjoyable
- Study Island – online PSSA practice for math and reading
- Other Online student/ teacher resources: Brainpop, Discovery Education, Teacher Tube, Scholastic, Starfall City, Khan Academy, IXL, Mr. Nussbaum, Type2 Learn, Sadlier Oxford Vocabulary

Middle School:

- Google Classroom – Google Classroom helps teachers create, assign, and collect student classwork and homework paperlessly
- Google Forms – Create reviews and surveys
- Teacher Tube - free community for sharing instructional videos and content for teachers and students.
- Flipped Classroom utilizing Kahn Academy, YouTube, Teacher Tube, and Mathtrain TV.
- KidBlog – safe and simple blogs for students
- PowToon - a way to create amazing videos and Awesome presentations!
- Emaze - online presentation software
- Comix - is an educational comic strip creator
- Improved interactive use of the SmartBoard
- Data analysis utilizing PVAAS, CDT, 4Sight reporting tools
- Study Island – online PSSA practice for math and reading
- TeenBiz – differentiated online instruction to improve students' reading

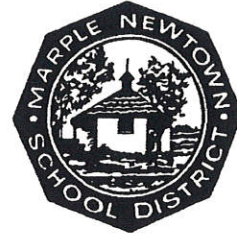
- *Newsela* and the *Students Resources in Context* GALE Database - Students also use these online resources to learn about keywords, keyword searching and how boolean operators impact search

High School:

- Google Classroom – Google Classroom helps teachers create, assign, and collect student classwork and homework paperlessly
- Google Forms – Create reviews and surveys
- App Plickers – a paper clicker program that allows teachers to do formative assessment
- GradeCam – a summative assessment grading app that allows teachers to print bubble sheets and grade assessments with their phone.
- EdPuzzle - empowers teachers to make any video their lesson using in flipping the classroom.
- Google+ handout/Fieldtrip live interactive fieldtrip with a museum curator in California.

Marple Newtown School District

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October 14, 2014

Dear Parent/Guardian,

Since technology is so integral in today's information rich world, your child may be using many online tools as a foundation for research, collaboration and problem solving across the learning community. Among these online tools will be the suite of Google Apps available for free on the internet. These apps specifically include Google Docs, Google Drive, Gmail and Google's Blogger application, as well as other applications available through Google Apps for Education (GAFE)

Safety and proper usage of the chosen technology is vital to the successful implementation of curriculum goals. To familiarize yourself with issues involving online safety, you may wish to visit the following site which is very valuable for anyone with an online presence, but especially those families with children. (<https://www.google.com/safetycenter/families/start/>) The use of GAFE will be encapsulated in a closed network. This means that only Marple Newtown School District Faculty and students will be able to communicate and work with each other. Users outside of the district will not be allowed into the Marple Newtown GAFE network. As a part of the GAFE End User License Agreement, the Marple Newtown School District must be and is compliant with Child Online Privacy Protection Act (COPPA). COPPA is a regulation that requires parental consent for the online collection of information about users under 13.

When respected, technology will benefit the learning environment as a whole. The use of technology to access educational materials is not a necessity or right, but a privilege. When abused privileges will be taken away per actions indicated in the Student Agenda which can be found at your child's school website. It will be the student's responsibility to follow the rules of acceptable internet, technology and social media use. (See Policy 815 and Policy 816 at: http://www.psb.org/districts_policies/m/342/)

In order to better help you understand the different functions of GAFE and how your students will be using it in the classroom, please visit our Frequently Asked Questions section of our website located at: http://www.mnsd.org/content_page.aspx?cid=6

Thank you,

Christopher E. Lee
Director of Technology
Marple Newtown School District
clee@mnsd.org

Elementary Technology Objectives

NETS Standard 1: Creativity & Innovation – Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Grade Level						Performance Indicators
K	1	2	3	4	5	<i>These indicators apply to all students are often extended in subsequent grade levels</i>
					*	Create pictures using graphic tools
						Create story using age-appropriate software
			*	*	*	Create a simple slide-show presentation
						Create a graph
			*			Insert multi-media (image, sound, video) into a project
				*	*	Create a simple spreadsheet to collect and record data
					*	Create a spreadsheet to organize, find, sort, and report data

NETS Standard 2: Communication & Collaboration – Students use digital media and environments to communicate and work collaboratively to support individual learning and contribute to the learning of others.

Grade Level						Performance Indicators
K	1	2	3	4	5	<i>These indicators apply to all students are often extended in subsequent grade levels</i>
						Discuss how technology helps with communication at home
						Participate in class or small group lesson using technology for shared writing
						Identify electronic communication methods
						Work collaboratively with peers on technology-related projects
						Create a presentation (print or slide show) that includes multimedia
						Use shared workspace (i.e., wiki, shared network folder, GAFE) to collaborate with peers

NETS Standard 3: Research & Information Literacy – Students apply digital tools to gather, evaluate and use information.

Grade Level						Performance Indicators
K	1	2	3	4	5	<i>These indicators apply to all students are often extended in subsequent grade levels</i>
						Identify a web browser
						Identify a search engine
						Acquire data from the internet from teacher-chosen websites
						Use safe and correct online security procedures
						Use a search engine to locate information from the Internet
			*	*	*	Cite sources when obtaining information from the Internet
				*	*	Evaluate the accuracy, relevance, comprehensiveness and bias of Internet sites

NETS Standard 4: Critical Thinking, Problem Solving & Decision Making – Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources

Grade Level						Performance Indicators
K	1	2	3	4	5	<i>These indicators apply to all students are often extended in subsequent grade levels</i>
			*		*	Use graphic organizer or other appropriate tool to brainstorm ideas or organize learning concepts
			*		*	Select and use a variety of technology tools and resources to solve a problem
				*	*	Use spreadsheet tools to analyze and represent numerical data

*Indicates areas identified where lessons need to be enhanced and/or developed

Elementary Technology Objectives (continued)

NETS Standard 5: Digital Citizenship – Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior

Grade Level						Performance Indicators
K	1	2	3	4	5	<i>These indicators apply to all students are often extended in subsequent grade levels</i>
						Follow lab rules and show responsible use of technology
						Navigate teacher-chosen websites
			*			Explain the purpose of, and follow the acceptable use policy
						Discuss safety issues related to use of the Internet
						Demonstrate the understanding of passwords
		*	*		*	Discuss how technology can be used to meet the needs of individuals and society
			*			Review Cyber bullying prevention in terms of respecting oneself and others online
					*	Understand and respect copyright laws
					*	Recognize the potential harm of intrusive applications (viruses, spyware, pop-ups, etc.)

NETS Standard 6: Technology Operations & Concepts – Students demonstrate an understanding of technology concepts, systems, and operations.

Grade Level						Performance Indicators
K	1	2	3	4	5	<i>These indicators apply to all students are often extended in subsequent grade levels</i>
						Identify parts of a computer
						Log on and off computer, and open and close applications
						Use a mouse to move, click, on objects, drag & point, and double-click
						Open, save, print & quit from different applications
						Create text using a word processor
		*	*	*	*	Demonstrate basic keyboarding skills using correct sitting, hand, arm and fingering positions
						Identify and use tool bar to format word processing
			*		*	Apply basic file management concepts
					*	Use spell check to edit
						Identify types of files by their icons or extensions
						Understand and use multiple applications simultaneously
				*	*	Introduce peripherals (camera, scanner, flip camera)

*Indicates areas identified where lessons need to be enhanced and/or developed

Elementary Technology Objectives -- Vocabulary

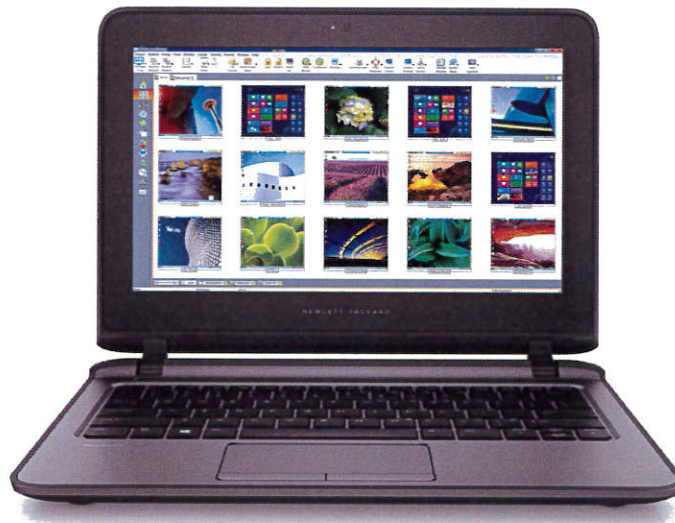
		I= Introduced/M=Mastered									
	Word	Definition	K	1	2	3	4	5			
4	CD/DVD-ROM	A drive attached to a computer that can read CD or DVD disks			I	M	M	M			
5	Cell	The individual box in a spreadsheet				I	M	M			
6	Chart/Graph	A picture of data sorted in a spreadsheet				I	M	M			
7	Chat/Instant Messaging	Communicating with people over the Internet				I	M	M			
8	Click-and-drag	Move objects across the screen	I	M	M	M	M	M			
9	Column	The vertical division of a spreadsheet				I	M	M			
10	Computer	An electronic machine for processing information	I	M	M	M	M	M			
11	Copy	Copy information to put somewhere else			I	M	M	M			
12	Cursor	A highlighted, sometimes blinking, line that shows where information is being input			I	M	M	M			
13	Cyber Bullying	Using technology to bully someone			I	M	M	M			
14	Cyber Safety	Safe and responsible use of the Internet and other technologies			I	M	M	M			
15	Data	Pieces of information				I	M	M			
16	Delete	Erase information				I	M	M			
17	Desktop	The main area on the screen that contains icons and windows			I	M	M	M			
18	Document	A files created by a program				I	M	M			
19	Double-click	Clicking the mouse button two times quickly	I	M	M	M	M	M			
20	Edit	Make changes				I	M	M			
21	Email	A way to send mail messages to people over the Internet			I	M	M	M			
22	File	A collection of information that has a name			I	M	M	M			
23	Folder	An area for storing files			I	M	M	M			
24	Font	The design of the letters and numbers				I	M	M			
25	Format	Change the look of text				I	M	M			
26	Graphics	Pictures, such as clip art, that can be inserted into a document				I	M	M			
27	Hard Drive	The main storage area inside the computer for storing documents, files and programs				I	M	M			
28	Icon	A small image on the desktop that represents a program, file, or document			I	M	M	M			
29	Internet	A collection of connected networks around the world			I	M	M	M			
30	Jump/Flash Drive	An external device for storing files				I	M	M			
31	Keyboard	An input device with keys used to enter information into a computer	I	M	M	M	M	M			
32	Laptop	A small portable computer	I	M	M	M	M	M			
33	Link	An object, text, or picture connected to another place on the Internet				I	M	M			
34	Logon/Logoff	Connecting or disconnecting from a computer network using a username and password	I	M	M	M	M	M			
35	Monitor	A screen that displays information from a computer	I	M	M	M	M	M			

36	Mouse	A device with buttons for clicking to make selections	I	M	M	M	M	M
37	Multi-media	A combination of pictures, sound, text, animation and video			I	M	M	M
38	Navigate	Moving around the Computer or Internet					I	M
39	Network	A collection of computers connected together to share resources		I	M	M	M	M
40	Paste	Put copied information in place				I	M	M
41	Pop-up	A windows that "pops" up on your screen, often trying to sell something						M
42	Printer	A machine for printing text and pictures on paper	I	M	M	M	M	M
43	Row	The horizontal division of a spreadsheet						M
44	Save/Save as	Name and store file in a folder		I	M	M	M	M
45	Scroll/Scroll Bar	An object that lets use slide a window side to side or up and down				I	M	M
46	Search	Look for information on the Internet					I	M
47	Shortcut	An icon that points to a program on the computer		I	M	M	M	M
48	Social Networking	Using an Internet application (such as Facebook or Myspace) to stay in touch with friends					I	M
49	Software	A program for doing things on a computer		I	M	M	M	M
50	Spreadsheet	A program for organizing either numbers or text in rows and columns					I	M
51	Spyware	A program that looks for personal information about you in your computer					I	M
52	Taskbar	The bar at the bottom of the screen that lists open folders and programs		I	M	M	M	M
53	Text	The letters or words put into a document with a keyboard			I	M	M	M
54	URL	The address of a webpage				I	M	M
55	USB Port	A port in the computer for plugging in external devices			I	M	M	M
56	Virus	A program that disrupts the normal operation of a computer					I	M
57	Web page	The page that shows on the Internet		I	M	M	M	M
58	Window	A separate area on the screen that you can move		I	M	M	M	M
59	WWW	World Wide Web, another word for the Internet				I	M	M

HP ProBook 11 EE G1



Compose, create, and inspire with the HP ProBook 11 EE. Loaded with the familiar and powerful Windows for the classroom and designed for school. It's built for students with advanced durability and easy mobility.



HP recommends Windows.

- Windows 8.1¹
- 11.6 inch diagonal

Tough enough for the classroom

- Bumps and bangs are no big deal for this thin, light, and durable notebook featuring a reinforced chassis designed to meet 70cm drop testing.²

Powered to perform

- Use the power of 5th Gen Intel® Core™ processors³ to engage students for hours without interruption thanks to long battery life.

Teaching and learning made easier

- Teaching and collaboration have never been easier. Use HP School Pack software suite right out of the box to enhance the learning experience.

Featuring

- See clearly on an 11.6" diagonal HD WLED display with optional capacitive touch.
- Communicate via HD webcam, DTS Studio Sound™, two speakers and a noise suppression mic.
- Keep students in the loop with a smooth internet connection.
- Do even more with your ProBook with multiple ports to support peripherals.
- Notebook charging carts, carrying cases, replacement batteries, security locks, and spare adapters make life—and learning—easier for students and teachers.
- Take advantage of the resources provided by HP School Pack, a software suite that includes eBooks, classroom management tools,⁴ security features, onboard IT support, and more.
- Simplify technical support with Helpdesk by HP Care Services.⁵ Rely on cost-effective expertise that's available 24x7, covering multiple brands, devices, and operating systems.
- HP helps you preserve your time and optimize your resources with expert configuration and deployment services that bring you fast, accurate, and globally standardized IT solutions.



HP ProBook 11 EE G1 Specifications Table



Available Operating System	Windows 8.1 Pro 64 ¹ Windows 8.1 Pro for Education 64 ¹ Windows 8.1 64 ¹ Windows 8.1 Single Language 64 ¹ Windows 7 Professional 64 (available through downgrade rights from Windows 8.1 Pro 64) ² Windows 7 Professional 64 (available through downgrade rights from Windows 8.1 Pro for Education 64) ² Windows 7 Professional 64 ¹ FreeDOS 2.0
Processor Family	Intel® Core™ i3 processor; Intel® Pentium processor; Intel® Celeron® processor
Available Processors	Intel® Core™ i3-5005U with Intel HD Graphics 5500 (2 GHz, 3 MB cache, 2 cores); Intel® Pentium® 3805U with Intel HD Graphics (1.9 GHz, 2 MB cache, 2 cores); Intel® Celeron® 3205U with Intel HD Graphics (1.5 GHz, 2 MB cache, 2 cores)
Chipset	Chipset is integrated with processor
Maximum Memory	8 GB DDR3L-1600 SDRAM
Memory Slots	1 SODIMM
Internal Storage	up to 500 GB SATA (5400 rpm) ⁴ up to 128 GB or 180 GB M.2 SSD ⁴
Display	11.6" diagonal HD SVA WLED flat touch screen (1366 x 768); 11.6" diagonal HD SVA WLED anti-glare flat (1366 x 768) ⁷
Available Graphics	Integrated: Intel® HD Graphics 5500; Intel® HD Graphics 4400; Intel® HD Graphics (Integrated graphics depends on processor)
Audio	DTS Sound+™ Dual stereo speakers; Single digital microphone with echo cancellation, noise suppression
Wireless Technologies	Intel Dual Band Wireless-AC 3160 802.11a/b/g/n/ac WiDi (1x1) WiFi and Bluetooth® 4.0 Combo; Intel Dual Band Wireless-AC 7260 802.11a/b/g/n/ac WiDi (2x2) WiFi and Bluetooth® 4.0 Combo; Realtek 802.11b/g/n (1x1) and Bluetooth® 4.0 Combo; HP hs3110 HSPA+ Mobile Broadband ^{5,9,10,11} (Compatible with Miracast-certified devices.)
Communications	Integrated 10/100/1000 GbE
Expansion Slots	1 multi-format digital media reader (supports SD, SDHC, SDXC)
Ports and Connectors	3 USB 3.0; 1 HDMI; 1 headphone/microphone combo; 1 AC power; 1 RJ-45; 1 VGA
Input Device	Full-sized island-style, spill resistant keyboard (tested to IP41 standard) with pick-resistant keycaps; ⁶ ; Touchpad with on/off button, taps enabled as default, support multi gestures, two-finger scroll, pinch/zoom, edge swipe
Camera	HP TrueVision HD camera ⁷
Available Software	Buy Office; Foxit PhantomPDF Express for HP; Microsoft Security Essentials (models with Windows 7); Bing Search; HP ePrint; Skype; Intel® WiDi Software; CyberLink Power2Go; CyberLink YouCam BE; HP SoftPaq Download Manager; HP PC Hardware Diagnostics UEFI; HP Support Assistant; HP Hotkey Support; HP Wireless Button Driver; HP MyRoom; HP MyLife eLearning; HP Connection Manager (models with Windows 7); HP GPS and Location; HP Wireless Hotspot; HP School Pack includes: PASCO SPARKvue, Oxford Advanced Learner's Dictionary, HP Classroom Manager Student Edition, OverDrive for HP, Absolute Computrace Data Protect Basic (1 year license must be activated by customer), Windows Defender, Microsoft OneNote, Microsoft FreshPaint ^{12,13,14,15,16,17,18}
Security Management	TPM 1.2; Security lock slot
Power	40 W Smart AC adapter 3-cell, 36 WHr Li-ion; 6-cell, long life 64 WHr Li-ion
Dimensions	11.88 x 8.95 x 1 in 30.18 x 22.74 x 2.54 cm
Weight	Starting at 3.52 lb Starting at 1.59 kg (Weight will vary by configuration.)
Environmental	Low halogen ⁸
Energy Efficiency Compliance	ENERGY STAR® certified configurations available
Warranty	HP Services offers 1 year limited warranty option depending on country; Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc .