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Budget Technology

For information concerning IMPACT II opportunities, such as interschool visits, staff development, workshops and Adapter and Disseminator grants, please contact:

The Broward Education Foundation
600 SE Third Avenue, 1st Floor
Fort Lauderdale, FL 33301
754-321-2032
www.BrowardEdFoundation.net

IMPACT II is a program of The Broward Education Foundation

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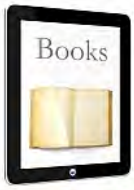
GOALS AND OBJECTIVES

Budget Technology offers students the opportunity to research the current technological products in both hardware and software, and using a prescribed budget create a package that would have the required elements to efficiently produce a digital presentation for any curricular area of study. Although this project will initially be conducted in a 10th grade English class, it is relevant to any course content, so most of the objectives are technologically oriented.



COMMON CORE AND TECHNOLOGY STANDARDS

TECHNOLOGY (ISTE/NETS)

Students will utilize:

1. Creativity and Innovation

   Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

2. Communication and Collaboration

   Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

3. Research and Information Fluency

   Students apply digital tools to gather, evaluate, and use information.

   Students use critical thinking skills to plan and conduct research.

4. Critical Thinking, Problem Solving, and Decision Making

   Students create projects, solve problems, and make informed decisions using appropriate digital tools and resources.

5. Digital Citizenship

   Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

6. Technology Operations and Concepts

   Students demonstrate a sound understanding of technology concepts, systems, and operations.

<u>COMMON CORE ENGLISH 9-10</u> **Research to Build and Present Knowledge**

Students will:

W.9-10.7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.9-10.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

COURSE OUTLINE

Because the status of "state-of-the-art" technology is always in flux, the results of this project will always yield different outcomes. This paradox is at once both an advantage and disadvantage to any researchers that may have the opportunity to actually purchase technology based upon their findings. The constant shift into "new" technology make any hardware or software investment immediately outdated and impossible to maintain with the latest applications. However, it is this situation that also allows for "bargains" on old technology that may only be months out of date. Refurbished hardware is also a way to access most digital possibilities for classroom applications.

Although this process could certainly be accomplished by an individual instructor wishing to find budget technology for his or her classroom use, utilizing this as a whole class project allows for much larger scope research conducted by those who often have a greater knowledge of current trends and uses of digital hardware and software—the students. They may also research during the course of this project financial resources in terms of grants or contests that would provide funding for their possible purchases of digital hardware and software.

Ironically, conducting this project will require access to one or more computers that have access to the internet. If a school has laptop carts or a computer lab set-up or media center (as most do due to the current requirements for state testing), this should not be a problem. Students will be divided into groups, each given a budget of $400-$1000, which is what most smaller grants allow. Instructions will include that each group must give a digital presentation on the results of their research that will list the equipment required for them to most economically conduct this particular presentation. Elements of the presentation must include:

1. Presentation hardware device
2. Projection/TV ability
3. Presentation software with audio and video/slides/pictures
4. Print resources if handouts are included
5. Cables and adapters

Each group will be given a budget worksheet to utilize. The final project must include web references and screen shots of particular equipment and software the groups have chosen for what they would purchase to create this presentation. They will need to define the criteria for their choices and include in their presentation why their choices are the best use of their budget, also considering the possibilities of continued use for other classroom applications.

Powerpoint Overview

REQUIRED ELEMENTS

- Presentation hardware device
- Projection/TV ability
- Presentation software w/Audio and Video/Slides/ Pictures
- Print resources if handouts are included
- Cables and adapters

HARDWARE

- Computers/ Laptops/ Netbooks

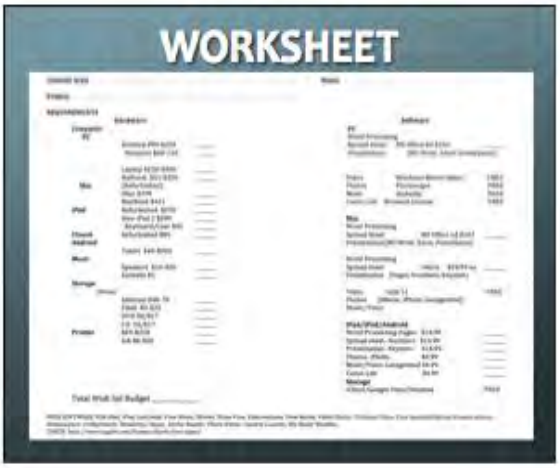
HARDWARE

iPads, iPods, Tablets, Androids

HARDWARE
Printer/ scanner/fax and ink

Cables/Adapters

SOFTWARE



RESOURCES

HARDWARE

COMPUTERS,LAPTOPS, IPads, ANDROIDS

http://www.newegg.com/

www.techforless.com/

http://store.apple.com/us/browse/home/specialdeals/ipad

http://www.walmart.com/

http://www.officedepot.com

http://www.bestbuy.com/

http://www.macmall.com

http://www.tigerdirect.com

SOFTWARE

ALL

http://www.newegg.com

http://www.ebay.com

http://www.retrosoftware.com/

AMAZON ANDROID APPS

http://www.amazon.com/mobile-apps/b?ie=UTF8&node=2350149011

APPLE APPS

http://www.apple.com/ipad/from-the-app-store/

EVALUATION AND ASSESSMENT

Assessment for this project will be based upon the instructor's evaluation of the project worksheet and the instructor/peer evaluation of the project presentation based upon the scores of the following rubric.

Budget Technology Presentation Rubric

Category	Exceeded Standards 4.5 -5	Met Standards 3-4	Below Standards 1-2
Meets project qualifications	The equipment list offers a creative solution to classroom participation in utilizing technology.	The equipment list meets most of the needs for classroom participation in utilizing technology.	The equipment list does not meet the needs for classroom participation in utilizing technology or is impractical.
Meets Budget	The budget presented meets the needs of the project and offers continued applications for future projects.	The budget presented meets the need for this project.	The technology is either over budget or does not meet the needs for this project.
Quality of presentation	The presentation of this project was creative and informative.	The presentation of this project was informative.	The presentation of this project lacked information or displayed sub-standard quality.
Total			

Grades

13.5-15	A
12- 13	B
10.5- 11.5	C
9-10	D

PROJECT WORKSHEET

Content Area _____ **Name** _____

Project _____

REQUIREMENTS

Hardware

Computer

PC

	Desktop $99-$250	_____
	Monitors $60-150	_____
	Laptop $250-$300	_____
	Netbook $51-$200	_____
Mac	(Refurbished)	
	iMac $399	_____
	MacBook $431	_____
iPad	Refurbished $250	_____
	New iPad 2 $399	_____
	Keyboard/Case $45	_____
iTouch	Refurbished $89	_____
Android		
	Tablet $49-$300	_____

Music

	Speakers $10-$50	_____
	Earbuds $1	_____

Storage

Drives

	External $40-70	_____
	Flash $5-$25	_____
	DVD 50/$17	_____
	CD 50/$17	_____
Printer	$69-$250	_____
	Ink $8-$50	_____

Software

PC

Word Processing		
Spread Sheet	MS Office Ed $103	_____
Presentation	(MS Word, Excel, Powerpoint)	
Video	Windows Movie Maker	FREE
Photos	Photoscape	FREE
Music	Audacity	FREE
Comic Life	Broward License	FREE

Mac

Word Processing		
Spread Sheet	MS Office Ed $103	_____
Presentation	(MS Word, Excel, Powerpoint)	
Comic Life	Broward License	FREE

Word Processing		
Spread sheet	iWork $19.99 ea	_____
Presentation	(Pages, Numbers, Keynote)	
Video	iLife 11	FREE
Photos	(iMovie, iPhoto, Garageband)	
Music/Voice		

iPad/iPod/Android

Word Processing-Pages	$14.99	_____
Spread sheet- Numbers	$14.99	_____
Presentation- Keynote	$14.99	_____
Photos- iPhoto	$4.99	_____
Music/Voice Garageband	$4.99	_____
Comic Life	$4.99	_____

Storage

iCloud/Google Docs/Dropbox	FREE

Total Wish list Budget _____

FREE SOFTWARE FOR iPad, iPod, Androids: Free Music, iBooks, Draw Free, Educreations, Free Books, Public Radio, Virtuoso Piano, Free Spanish/Italian/French-others, Shakespeare, GoSkyWatch, Notability, Skype, Adobe Reader, Photo Editor, Calorie Counter, My Radar Weather, HP ePrint
CHECK http://www.apple.com/itunes/charts/free-apps/

LESSON PLAN

Title: **BUDGET TECHNOLOGY**

Curriculum Area:

COMMON CORE ENGLISH 9-10 **Research to Build and Present Knowledge**

Students will:

W.9-10.7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

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collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

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4. Critical Thinking, Problem Solving, and Decision Making

   Students create projects, solve problems, and make informed decisions using appropriate digital tools and resources.

5. Digital Citizenship

   Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

6. Technology Operations and Concepts

   Students demonstrate a sound understanding of technology concepts, systems, and operations.

Subject Area: Research/Technology All content areas

Materials/Equipment:

Technology Computers with internet access or

iPad with internet access and presentation adapters

External Drive 120G-1T

Flash drives 4G-8G

LCD projector

Screen or whiteboard

Printer (HP 4620 w/ HP ePrint for iPad)

Software Powerpoint or Keynote

iWorks software for iPad

HP ePrint application

Learning Objectives:

- Students will participate in technology-driven, project-based learning
- Students will participate in collaborative groups
- Students will utilize several types of presentation software to create an electronic project
- Students will share their presentations with peers to enhance the student-as-teacher experience
- Students will utilize internet as research resource to gather information and determine its validity

Evaluation/Assessments:

- Instructor will evaluate project worksheet using rubric.
- Instructor and peers will evaluate group presentations using rubrics

Adaptations: (For students with exceptionalities)

- A7 Activating Prior Knowledge
- B2-5 Maps/Charts/Graphs/Pictures
- B14 Demonstrations
- C1-2 Peer Buddy/Small Group Activities
- C7 Cooperative Learning (Group Reports/Projects)

Process:

1. Students will be divided into groups, each given a budget of $400-$1000, which is what most smaller grants allow.

2. Instructions will include that each group must give a digital presentation on the results of their research that will list the equipment required for them to most economically conduct this particular presentation.

   Elements of the presentation must include:

   1. Presentation hardware device
   2. Projection/TV ability
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   4. Print resources if handouts are included
   5. Cables and adapters

3. Each group will be given a budget worksheet to utilize.
4. The final project must include web references and screen shots of particular equipment and software the groups have chosen for what they would purchase to create this presentation. They will need to define the criteria for their choices and include in their presentation why their choices are the best use of their budget, also considering the possibilities of continued use for other classroom applications.
5. Assessments will be based upon instructor/peer evaluations of presentations recorded on rubrics.
6. Based upon assessments the "winning" team project will be chosen.

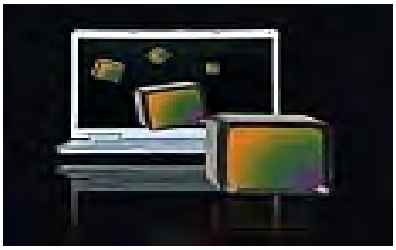
MODIFICATIONS AND INTERDISCIPLINARY CONNECTIONS

MODIFICATIONS

Grades 4-8

While this project was originally designed for a 10th grade English class as well as a TV Production class, most of the elementary and middle school "digital natives" are very adept at downloading applications for their smartphones, tablets, and iPads; so researching for the best deals for technology and actually applying them would not be difficult for these students. Students or the instructor can download You Tube tutorials at home and save them as MP4's or .mov files, save to a flashdrives, and use them for class instruction on how to use Powerpoint, Keynote, or iPads for presentations.

INTERDISCIPLINARY CONNECTIONS



All Curricula

Utilizing technology is key to Common Core Standards, so researching the use of technology is applicable to all subject areas for class presentations. The focus of the project can easily adapt to any content area for instruction

RESOURCES

HARDWARE
iPads, iPods, Tablets, Androids
iPad 2
$399
Buy Now
$183.99
Lepan TC970 9.7" 1GHz 2GB Android 2.2 (Froyo) OS
$149.00
7" Android 4.0 WiFi Tablet w/ Capacitive Touchscreen & Built-in Camera
BUY
Wireless Bluetooth Keyboard For Apple iPad 2, The New iPad (iPad 3)
Regular price: $69.99
Last Day Clearance
Sale: $34.99
(You Save 61%)
ADD TO CART

HARDWARE
Computers/ Laptops/ Netbooks
SYLVANIA
SYLVANIA SYNET7WIC 7" 512MB Memory 2GB flash SSD Netbook
REFURBISHED
$51.99
ADD TO CART
FREE SHIPPING
PENTIUM 3.0GHz
1GB DDR2
80GB HDD
DVDROM
HP DC7600 Refurbished Desktop PC
$11999

HARDWARE

Printer/ scanner/fax and ink

Compare

Canon - PIXMA MX432 Wireless All-In-One Printer

Model: MX432 **SKU:** 4876517

ENERGY STAR Qualified

4-in-1 functionality; high-speed USB 2.0 and wireless (802.11b/g/n) connectivity; prints up to 9.7 ipm in black and up to 5.5 ipm in color (Print speeds vary with use. See manufacturer for info on print speeds.)

Customer Reviews: 4.5 of 5 (15 reviews)

Check Shipping & Availability ›

Sale: $69.99

Reg. Price: $99.99
You Save: $30.00

- Free $20 Gift Card: Find Out How
- $20 Off In-Home Network Setup: See How
- Free Shipping

Cables/Adapters

AC Adapter and USB Charging Cable For Apple IPad

Regular price: $29.99
Last Day Clearance
Sale: As low as $6.00
(You Save 73%)
Qty: 1 ADD TO CART

Wireless Bluetooth Keyboard For Apple iPad 2, The New iPad (iPad 3)

Regular price: $89.99
Last Day Clearance
Sale: $34.99
(You Save 61%)
Qty: 1 ADD TO CART

Composite Audio and Video Cable For Apple iPad, iPhone 4S, iPhone 4, iPhone 3GS, 3G, 2G

Regular price: $45.00
Last Day Clearance
Sale: $19.99
(You Save 56%)
Qty: 1 ADD TO CART

HDMI Cable Adapter For iPad, iPhone 4, iPhone 4S, iPod touch (4th generation)

Regular price: $69.99
Last Day Clearance
Sale: $29.99
(You Save 57%)
Qty: 1 ADD TO CART

Camera Connection Kit And Memory Card Reader For Apple iPad

Regular price: $29.99
Last Day Clearance
Sale: $5.99
(You Save 80%)
Qty: 1 ADD TO CART

SOFTWARE
iPhoto
iTunes U
Pages
iMovie
Numbers
iBooks 2
Keynote
GarageBand

SOFTWARE
Quickoffice Pro
Quickoffice
(456)
$14.99
TeacherTube
Home
Free Sign up!
Log in
Search
Docs
Audio
Photos
Community
Upload
Featured Videos
Recently Added
Most Viewed
Top Rated
Most Discussed
Most Favorite
Most Linked
Most Responded
Upload Video
SPANISH
FREE
3.
EasyTalk Learn Spanish Free
by Fasoft Ltd.
(5)
Available instantly on your connected Android device
Free
Smart Writing Tool - 7notes Premium (Kindle Fire Edition)
MetaMoJi
(70)
$0.99
Scientific Graphing Calculator
OOZIC TECHNOLOGY CO.
(12)
$1.49
OfficeSuite Professional 6
Mobile Systems
(859)
$14.99

SAMPLE BUDGETS

Refurbished Netbook	$60
Microsoft Office	$69
LCD projector	$350
Cables	$25
	_____
	$504

Refurbished PC desktop	$100
Monitor	$75
Mouse & Keyboard	$25
Microsoft Office	$69
LCD projector	$350
Cables	$25
	_____
	$644

iPad	$399
Cables	$60
iWork	$30
LCD Projector	$350
	_____
	$839

Some schools already have projectors available and this will cut budgets by $350.

BIBLIOGRAPHY

Using Powerpoint

http://www.youtube.com/watch?v=xsNHJzz09QE
http://www.youtube.com/watch?v=JYhUr4NoDbI&feature=related

Using Keynote

http://www.apple.com/iwork/tutorials/#keynote-hero
http://apple-iwork.wonderhowto.com/how-to/get-started-using-keynote-09-278669/

Keynote on iPad

http://www.youtube.com/watch?v=Lsr8EW8SPCU
http://www.youtube.com/watch?v=7z379-d4zLA&feature=related

Finding Budget Hardware

http://www.newegg.com
http://www.techforless.com
http://store.apple.com/us/browse/home/specialdeals/ipad
http://www.tigerdirect.com
http://www.walmart.com
http://www.officedepot.com
http://www.bestbuy.com/
http://www.macmall.comhttp://www.makeuseof.com/tag/top-places-buy-refurbished-mac-laptops-mac/

Finding Budget Software

http://www.newegg.com
http://www.ebay.com/
http://www.retrosoftware.com/
http://www.apple.com.ipad/from-the-app-store/
docs.google.com

Android Apps

http://www.amazon.com/mobile-apps/b?ie=UTF8&node=2350149011/

Free YouTube downloader and converter

http://fastest-free-youtube-downloader-to-mp3-converter-for-mac.en.softonic.com/mac