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Monday, January 31, 2011
http://www.davidschubert.net

Developing 21st Century Learners with Technology Rich Lessons

Welcome to FETC!

"It is the supreme art of the teacher to awaken joy in creative expression and knowledge."

--Albert Einstein

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Objectives

- Understand why it is important to engage students in the learning process
- Identify ways in which technology can increase engagement and develop 21st Century skills
- Learn the appropriate and inappropriate uses of technological tools for engaging students
- Define Web 2.0 and learn how to increase collaboration in the classroom with Web 2.0 tools
- Develop an engaging inquiry-based lesson plan that incorporates technological tools

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Introductions

- Visit edmodo.com and join our workshop group: Groups → Join, Group Code FETC98
- Add a picture (if possible) or choose an avatar
- Post a note to the group to introduce yourself
  - My name is [name] and I am from [school or school district] in [county or city]. I am a [teacher, administrator, etc.] and I [teach, coordinate, etc.] [subject area or grade level]. I chose to attend the 21st Century Learners workshop because…
- We will go around the room and share

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Engaging 21st Century Learners

- What does it mean to be engaged?
  - To be involved or absorbed in something, especially to the extent that all of one's attention is focused on that thing.
- How do we engage students without using technology?
- Don't use technology for technology's sake

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Students are Engaged in Technology

- Novelty of technology in the classroom
- Surrounded by technology-enhanced systems in the world around them
- Technology makes things easier
- We need to harness this engagement
- We need to teach students to view *learning* with technology as exciting

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What Do Students Need To Learn About Technology?

- How things are done in the "real world"
- Practice exploring new software and devices
- How to use information technology to answer questions
- How technology is evolving
- Information Literacy

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Standards for the 21st-Century Learner

- American Association of School Librarians - www.ala.org/aasl/standards/
  - Everyone should download the PDF
  - Published in 2007
- Avid readers
- Independent learners (inquirers)
- Ethical use of information
- Technology skills
- Equitable access to information

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Synthesis Activity: Standards for the 21st-Century Learner

- Break into groups of four
- Download the Learning Standards pamphlet at www.ala.org/aasl/standards/
- Each group will discuss the concepts for one of the objectives (15 minutes), and present to all participants
- Be thinking about how the tools we talk about reinforce these skills

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Classroom Technology Meets the Needs of 21st Century Learners

- Interactive technology
- Models
- The Internet, Image Search, YouTube
- Just for 21st Century Learners?

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Student Technology Tools: Digital Still Camera

- Take pictures and download them to a computer
- Can be used as a discovery tool – "find and photograph _____"
- Often used together by a group of students
- Can be compiled into a class presentation
- Great on field trips

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Student Technology Tools: Digital Video Camera

- Take videos and download them to a computer
- Can be used as a discovery tool – "find and film _____"
- Benefit over digital still cameras: students can discuss what they find
- Often used together by a group of students
- Great on field trips
- May be uploaded to a class website

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Student Technology Tools: Scanner

- Convert a physical picture into a digital picture
- Largely replaced by image search
- Still useful for scanning in student-produced drawings to include in projects or on the Web

Student Technology Tools: iPod

- Good if you tie them into the curriculum
- Several devices in one – web browser, music player, digital camera, microphone
  - Challenges

Edmodo Post: Student Technology Tools

- Go to our group on Edmodo and post a paragraph with your ideas for using some of these Student Technology Tools in your classroom:
  - Digital Still Camera
  - Digital Video Camera
  - Scanner
  - iPod

Teacher Technology Tools: Multimedia Projector

- Projects an image from a camera, computer, or other video source
- Analogous to a display, such as a computer monitor or television
- Projects onto a screen or whiteboard
- Incorporate any website into your lesson

Teacher Technology Tools: Interactive Whiteboard

- A giant touch screen!
- Really just a mouse input, like a giant trackpad
- Plugs in to the computer like a mouse (USB)
- Image is projected onto the board
- Write on top of any computer image
- Move objects with a finger or pen
- Put thoughts into action

Teacher Technology Tools: Document Camera

- Replaces the overhead projector
- Literally, a live video camera pointed down at the paper or object on the desk
- Can send video straight to the projector, or through the computer
  - Benefits of sending video through the computer
- Share student work in front of the class
- Annotate anything on-screen

Teacher Technology Tools: Classroom Response System

- Distribute questions on screen, on paper, or verbally
- A new spin on quizzing/testing
  - Automatic grading
- Poll students regularly to keep them focused
- Quickly see who needs additional instruction

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Edmodo Post: Teacher Technology Tools

- Go to Edmodo.com and Click on "Dev 21st Century Learners"
- Post a paragraph with your ideas for using some of these Teacher Technology Tools in your classroom:
  - Multimedia Projector
  - Interactive Whiteboard
  - Document Camera
  - Classroom Response System

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Software Tools: Google Earth

- View satellite imagery of the entire earth
  - And other celestial bodies – mars, the moon
- Show additional information in layers
  - Weather, 3D buildings, oceans
- Use to answer students' questions about geographic locations, astronomy, weather, landmarks...

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Software Tools: Skype

- Video chat with anyone in the world
  - Now works on mobile devices
- Have professionals talk to your class
- Skype with other classes

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Software Tools: Web 2.0

- Web 2.0 refers to an evolution of the Internet from static pages that users consumed to a collaborative environment where users share information
- Web 2.0 is NOT a piece of software you download and install
- Cumulative changes in the way software developers and end-users use the Web
  - Web applications

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Software Tools: Web 2.0

- Collaborative software: wikis, blogs, etc.
  - Conleypedia
  - Student blogs
- Social networking sites
  - Challenges and risks
  - Benefits
- Twitter – used in by university professors to encourage participation
- Google Docs

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Edmodo Post:
Software Tools

- Go to Edmodo.com and Click on "Dev 21st Century Learners"
- Post a paragraph with your ideas for using some of these Software Tools in your classroom:
  - Google Earth
  - Skype
  - Web 2.0

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Software Tools:
Microsoft Photo Story

- Create a video out of pictures, music, and narration
- Narration – write a script or story first
  - Great for low readers or writers
  - Pictures and music increase engagement and relevancy to the student
- Use other tools, like digital cameras, or find pictures online (e.g. Google Images)

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Project: Create a Photo Story

- Create a Photo Story that teaches viewers how to use a technology we have learned about in the classroom
- Use at least five pictures
- Follow the directions attached to this assignment on Edmodo

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Project: Write a Lesson Plan

- Write a lesson plan that uses technology to engage students
- Use the lesson plan template on Edmodo
- Attach your completed lesson plan to an Edmodo post

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Thank you for attending!

- Workshop evaluation
- Questions and answers
- Exchange information with each other
- www.davidschubert.net
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Enjoy FETC 2011!

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