Understanding by Design / Technology Connection:

Linking Understanding by Design and Collaborative Uses of Web 2.0

Donna Herold, Spokane Public Schools
ASCD Understanding by Design Cadre / Faculty Member

ASCD Summer Conference 2010, Orlando

Let's use the backchannel . . .

- http://todaysmeet.com/UBDWeb2
- Forum uses:
  - Ask questions
  - Answer each others' questions
  - Add information

Goals:

- **Examine** and discuss P21 Core themes and skills and their application in your classroom
- Quickly **Review** the three stages of *Understanding by Design* and how the stages intersect with 21st century skills.
- **Explore** a tool to align Stage one Essential Question(s) with 21st Century-friendly assessment(s)

"The main problem is not the absence of innovation in schools, but rather the presence of too many ***disconnected, episodic, fragmented, superficially adorned projects***."

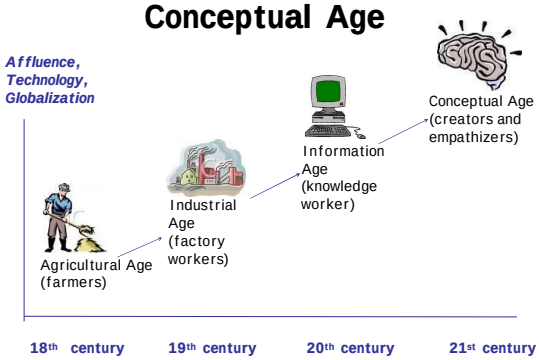
Fullan, M., (2001), The New Meaning of Educational Change, New York: Teachers' College Press

#2

Goals:

- **Examine** and discuss P21 Core themes and skills and their application in your classroom

From the Agriculture Age to the Conceptual Age



#4

Are we developing. . .

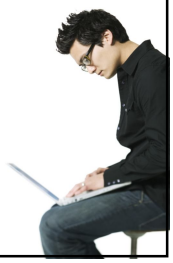
communicators . . .

leaders . . .

creators . . .

critical thinkers . . .

self-directed workers?



Really Ready to Work?

- Of the High School Students that you recently hired, what were their deficiencies?

Written Communication	81%
Leadership	73%
Work Ethic	70%
Critical Thinking & Problem Solving	70%
Self-Direction	58%

#5

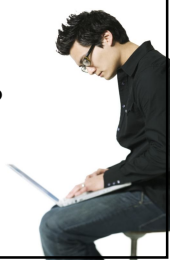
Are our students . . .

effective communicators . . .

critical thinkers . . .

globally competent . . .

and technologically literate?



Partnership for 21st Century Core Themes and skills

- **THEMES:**
  - Global Awareness
  - Financial, economic, business, and entrepreneurial literacy
  - Civic literacy,
  - Health and environmental literacy
- **SKILLS:**
  - Creativity and Innovation
  - Information, Media, and Technology Skills
  - Life and Career Skills

#6

Compliance or engagement? Goal: Understanding or grades?

Traditional incentives = **grades**

- Biological drive
- Rewards and punishments
- Intrinsic motivation

  (autonomy, mastery, purpose)

http://www.youtube.com/watch?v=u6XAPnuFjJc

Goals:

- Quickly **Review** the three stages of *Understanding by Design* and how the stages intersect with 21st century skills.

UNDERSTANDING BY DESIGN

Begin with the end in mind:

1. ***Identify desired results.***
2. ***Determine acceptable evidence.***
3. ***Plan learning experiences and instruction.***

#7

1. Identify desired results.

2. Determine acceptable evidence.

3. Plan learning experiences and instruction.

#8

'Enduring Understanding'

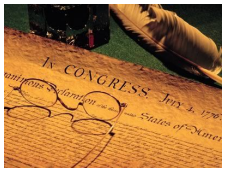
Learners must **Acquire** and **Make Meaning** out of information in the service of understanding and **Transferring** it.

Memorize these numbers:

17766024365911

[redacted]

Think of . . .



- The Declaration of Independence

Minutes / Hours / Days / Years

Emergencies!

Memorize these numbers:

1776-60-24-365-911

- How many buses does the army need to transport 1,128 soldiers if each bus holds 36 soldiers?

32

Too many students

Do not transfer their learning

Do not know what to do when stuck or confronted with complex challenges

Think successful learning equals accurate recall

Are needlessly bored

Too many instructional designs

Don't demand higher-order thinking frequently enough

Overlook long-term goals and end up as 'coverage'

Understanding by Design template

Stage 1—Desired Results

Established Goals: *State Standards addressed in this unit*

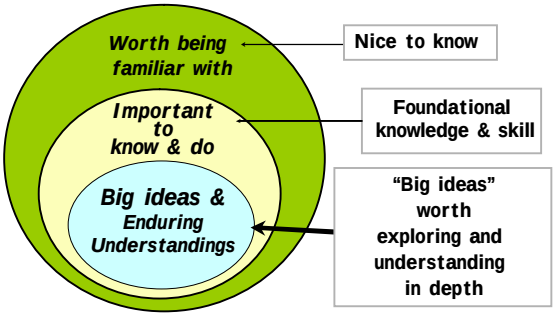
Enduring Understandings: *Students will understand that. . .*	**Essential Questions:** *Align with Enduring Understandings*
Students will know. . . • *What key knowledge / content will students acquire as a result of this unit? (P21 Checklist)*	*Students will be able to. . .* • *What skills will students acquire as a result of this unit? What should they be able to with new skills? (P21 Checklist)*

☐ Civic literacy
☐ Health literacy
☐ Environmental literacy
☐ Global Awareness
☐ Financial, economic, business, and entrepreneurial literacy

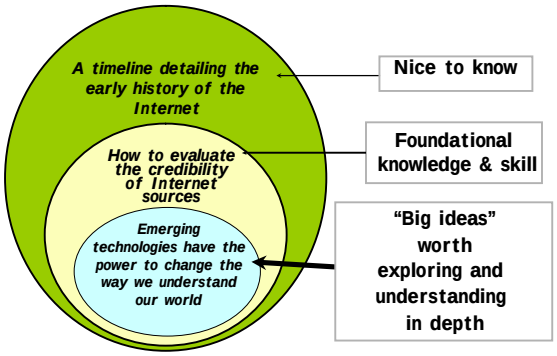
☐ Creativity and Innovation
☐ Information, Media, & Technology Skills
☐ Life and Career Skills

Stage 2—Assessment Evidence

Establishing Priorities: focus on "Big Ideas"

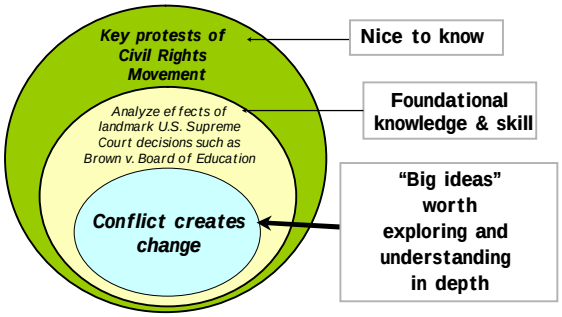


"Big Ideas" of Technology



#10

"Big Ideas" of the Civil Rights Movement



#11

Enduring Understanding:

Conflict creates change

Essential Question:

To what extent did the conflicts of the Civil Rights movement create a platform for political change?

#12

knowledge and **skills**

. . .assist students in **gaining** understanding

AND

in **illustrating** their understanding

Content—Knowledge--Skills

On the provided template:

Brainstorm one or two enduring understandings and/or essential questions that you wish your students/staff to understand.

Identify 21st Century skills to be targeted throughout the unit.

. . . And if you have time, **List** any other knowledge and skills you would want acquired within this unit of study.

STAGE ONE

#13

1. *Identify desired results.*

2. Determine acceptable evidence.

3. *Plan learning experiences and instruction.*

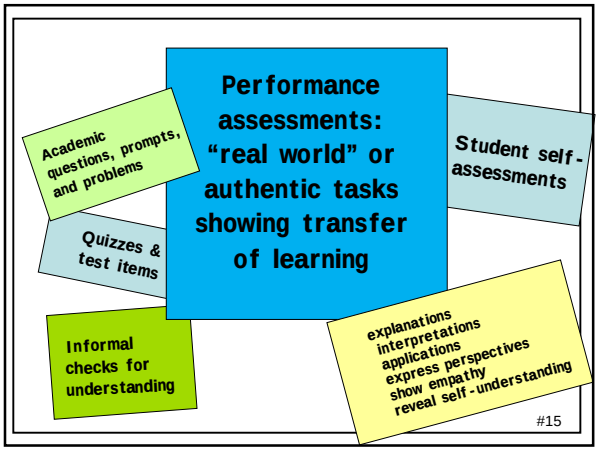
#14

Understanding by Design template Stage Two

Stage 2—Assessment Evidence	
SUMMATIVE Authentic Performance Task: *Through what authentic performance tasks will students demonstrate the desired understandings? (See Web 2.0 Resource List)* *Consider:* ☐ *Resources to use / manage information* ☐ *Resources to collaborate / communicate* ☐ *Resources to create media products*	**Key Criteria or Rubric:** *By what criteria will performances of understanding be judged?*
Other Formative and Summative Evidence: *What diagnostic, pre-assessment, and in-unit formative assessment about the unit concepts, content, or skills will guide teacher instruction?*	
How will students reflect upon and self-assess their learning?	

Some pictures are better than others

. . so we should take MANY pictures of our students' understanding!



Goals:

- **Explore** tools to align Stage one Essential Question(s) with 21st Century-friendly assessment(s)

QUICK QUIZ

What web-based tools do you use when integrating technology into classroom assessments?

- http://urtak.com/u/3366

Resources to collaborate / communicate

- Interactive discussion--http://todaysmeet.com/UBDWeb2
- Simple online quizes--http://urtak.com/u/3366
- Blogging http://www.21classes.com
- Wikis http://pbworks.com/

- Next on my list:
  - http://posterous.com
  - http://www.wallwisher.com/

Resources to access information

- http://www.classroom20.com/
- http://www.cooliris.com/
- http://www.slideshare.net/
- http://www.dropbox.com/

- Next on my list:
  - http://eyeplorer.com/show/
  - http://www.shmoop.com/

Resources to create media products

Narrative/storytelling:

- http://blabberize.com/
- http://goanimate.com/

Next on my list:

- http://alpha.zooburst.com/
- http://www.toondoo.com/

Presentation of information:

- http://voicethread.com
- http://prezi.com/
- http://www.pageflakes.com/
- http://www.glogster.com/
- http://www.wordle.net/ **or** http://www.tagxedo.com/

Video:

- http://animoto.com/

Next on my list:

- http://www.dfilm.com/live/home.html

Games:

- http://scratch.mit.edu/

Publishing:

- http://issuu.com/home
- http://www.lulu.com/

Next on my list:

http://penzu.com/account/login

On the provided template:

Brainstorm how your students/staff might illustrate their understanding in a final performance task. Reference the resources column for ideas to facilitate 21st century skills acquisition.

List any other formative or summative assessments you might wish to include.

STAGE TWO

Tiers of Technology Integration: Classroom Indicators

	Tier 1: Teacher Focus on Productivity	Tier 2: Instructional Presentation and Student Productivity	Tier 3: Powerful Student-Centered 21st Century Learning Environment
	This tier focuses on the teacher using technology to get their job done.	This tier involves teacher facilitation of large group learning activities and student productivity use of technology.	This tier promotes students to be actively engaged in using technology in individual and collaborative learning activities.
Observable Indicators	Teachers: •Locate standards using electronic tools to align lessons •Find instructional resources on the Internet •Produce, store, and retrieve learning materials electronically •Keep/organize student information, grades more effectively •Communicate information to parents and students via web or e-mail •Communicate quickly with e-mail	Teachers: •Conduct one-computer classroom lessons •Deliver presentations with graphics and sound •Lead students in brainstorming and sharing ideas •Represent information visually •Facilitate group discussions and lessons •Have students write papers and reports on assigned topics using computers or "smart keyboards" such as AlphaSmarts •Create scaffolding for student projects •Facilitate students using technology for assessment •Interactively communicate with parents and students	Teachers enable students to: •Create and use online resources to facilitate inquiry •Engage in inquiry-based projects driven by essential questions •Direct their own use of technology •Research, analyze data and problem-solve in a global context •Engage in individual or collaborative project-based learning •Use modeling and simulations •Write, develop and publish individual and collaborative products •Invent products through programming or production •Create scaffolding for their own projects •Are involved with their parents and tea •T3chers in the analysis of student data and meeting standards, or participate in developing their own learning plans •Initiate communication with parents, teachers, community members, or other students

Stage	Examples of what teachers do
Entry	*Learn the basics of using the new technology.*
Adoption	*Use new technology to support traditional instruction.*
Adaptation	*Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.*
Appropriation	*Focus on cooperative, project-based, and interdisciplinary work—incorporating the technology as needed and as one of many tools.*
Invention	*Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.*

Stages of ***technology integration*** development for ***ACOT*** (Apple Classrooms of Tomorrow) Teachers by Wesley Fryer. From page 16 of the ***ACOT*** 10 Year Repor

#16

Begin with the end in mind.

1. Identify desired results.

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#18

Stage two planning is revealed in Stage three instructional design

Feedback and Goal Setting

Pre-assessment (Finding Out)

Readiness, Interests, and Learning Preferences of students
Essential Questions [reading/writing]

Formative Assessment (Keeping Track & Checking -up)

Exit Cards Peer evaluation
3-minute pauses
Vocabulary - quiz/notebooks
Observations
Creating Rubrics
Self-evaluation
Journals - Essential Questions+

Summative Assessment (Making sure)

Performance Task
Academic Prompt
Portfolio

#19

On the provided template:

If time, begin to **design** your instructional timeline.

STAGE THREE

#20

- "If we teach **today** like we taught **yesterday**, we rob our children of **tomorrow**."

– -John Dewey, Educator and Philosopher

#21

For more information:

- Partnership for 21st Century skills:
  - http://www.21stcenturyskills.org/route21/
- International Society for Technology in Education (ISTE)
- http://www.iste.org/AM/Template.cfm?Section=NETS

- Donna Herold
- Ferris High School
- (509) 979-2521
- http://www.21stcenturyschoolteacher.com

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