


Creating an Understanding based Curriculum for 21st Century Learning

Jay McTighe

U N D E R S T A N D I N G
by D E S I G N


Something to consider... 

“Do not confine your children to your own learning, since they were born in another time.”

- Chinese proverb

Topic Agenda

- ✓ The “Big Ideas” of UbD
- ✓ Stage 1 - TGs, Us, and EQs
- ✓ Stage 2 - Assessment Evidence
- ✓ Stage 3 - T4U, A-M-T
- ✓ Macro Curriculum (jig-saw)
- ✓ UbD Supportive Websites

Three-Minute Pause 

Meet in groups of 3 - 5 to...


- ✓ summarize key points.
- ✓ add your own thoughts.
- ✓ pose clarifying questions.

An Understanding-based Curriculum

Teach & Assess for Understanding & Transfer

**Plan Curriculum “backward”
3 Stages of Design**

What is Understanding?



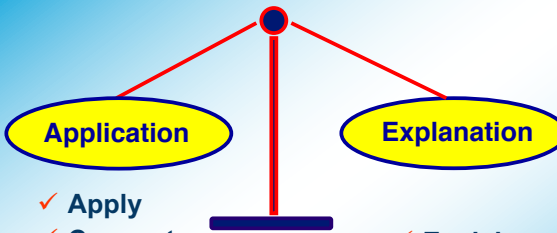
What is Understanding? ?

- *How do you define it?*
- *What are indicators of understanding?*
- *What are indicators that someone might “know” something without really understanding it?*

T-Chart Process

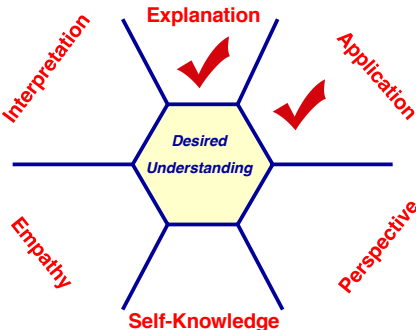
Someone who <i>really</i> understands	Someone who knows a lot but doesn't understand
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Someone who <i>really</i> understands	Someone who knows a lot but doesn't understand
<ul style="list-style-type: none"> ✓ Apply ✓ Connect ✓ Create ✓ Critique ✓ Explain ✓ Interpret ✓ Justify ✓ Predict ✓ Question ✓ Solve ✓ Teach 	<ul style="list-style-type: none"> ✦ Recall ✦ Identify ✦ Retell ✦ State ✦ Regurgitate ✦ Plug in



<ul style="list-style-type: none"> ✓ Apply ✓ Connect ✓ Create ✓ Critique ✓ Predict ✓ Question ✓ Solve 	<ul style="list-style-type: none"> ✓ Explain ✓ Interpret ✓ Justify ✓ Teach
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Facets of Understanding




The 6 Facets ...

- provide *indicators* of understanding.
- suggest the kinds of assessments needed to judge whether students *really* understand.

3 Stages of Backward Design

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

Design Curriculum "Backward"

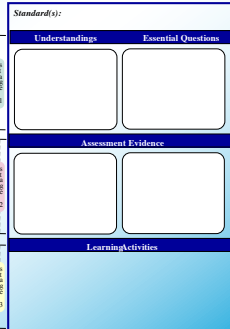


1. *What do you want students to learn?*
2. *How will you know they have learned it?*
3. *How will you teach to help them learn it?*

-- Dr. Ralph Tyler, 1949

The UbD Template...

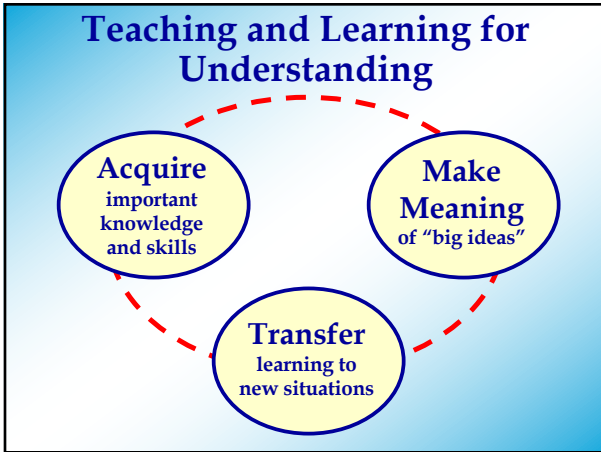
- ✓ reflects a way of thinking and planning
- ✓ fosters a "mental template" for effective design



Stage 1 - Desired Results

Established Goals What Content Standards, Program and/or Mission related goal(s) will this unit address?	Transfer <i>Students will be able to independently use their learning to...</i> What kinds of long-term, independent accomplishments are desired?	
	UNDERSTANDINGS <i>Students will understand that...</i> What specifically do you want students to understand? What inferences should they make?	ESSENTIAL QUESTIONS <i>Students will keep considering...</i> What thought-provoking questions will foster inquiry, meaning making, and transfer?
	Acquisition of Knowledge & Skill <i>Students will know...</i> What facts and basic concepts should students know and be able to recall?	<i>Students will be skilled at...</i> What discrete skills and processes should students be able to use?

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3 Stages of Backward Design

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

Stage 1 - Identify desired results.

Consists of 5 components:

- established goals
- long-term transfer goals
- understandings
- essential questions
- knowledge and skills

A Research Finding



A guaranteed and **viable** curriculum is the #1 school-level factor impacting student achievement.

-- Marzano, *What Works in Schools*

Curriculum...



"the course to be run"

Curriculum = a plan to achieve designated goals

Curriculum **≠ not** a list of topics and related activities

Long-Term Transfer Goal

"Students will be able to independently use their learning to..."



An effective curriculum equips learners for autonomous performance
...by design!

Transfer Goal - Writing

- Effectively write in various genres for various audiences and purposes (inform, explain, entertain, persuade, guide, or challenge/change things).

Transfer Goals - Mathematics

Mathematically proficient students:

- Make sense of never-before-seen problems and persevere in solving them.
- Construct viable arguments and critique the reasoning of others.

Transfer Goal - Reading

- Read, comprehend and respond to any text in various genres (literature, non-fiction, technical) through four stances – Global (i.e., get the “gist”), Interpretative (between the lines), Critical (e.g., identify perspective), and Personal (“text-to-me” connections).
- Enjoy reading as a leisure time pursuit.

Transfer Goal - History/SS

- Use knowledge of patterns of history to better understand the present and prepare for the future.
- Critically appraise historical claims and analyze contemporary issues.
- Participate as an active and civil citizen in a democratic society.

Transfer Goal - World Languages

Effectively communicate with varied audiences and for varied purposes while displaying appropriate understanding of culture and context.

Transfer Goals - Science

- Use knowledge and reasoning to evaluate scientific claims and analyze current issues involving science or technology.
- Conduct an investigation following established scientific protocols.

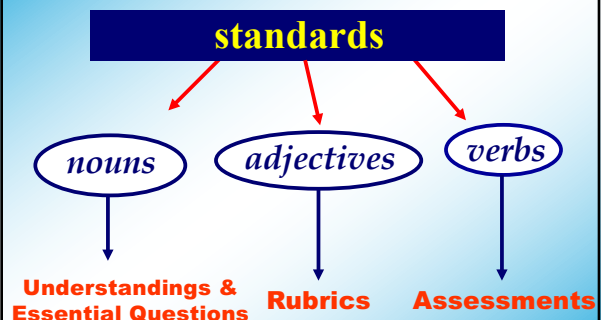
North Slope Borough School District, 2012


“Unpack” Standards

Consider: What “big ideas” are embedded within the standards?

content standards
big ideas

The “Inside Out” Method





English - writing

Write arguments to support claims in an analysis of substantive topics or texts, using *valid reasoning* and *relevant and sufficient evidence*.

3 Stages of Backward Design


1. Identify desired results.
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Think "Photo Album" versus "Snapshot"

Sound assessment requires multiple sources of evidence, collected over time.




Gather evidence from a Range of Assessments



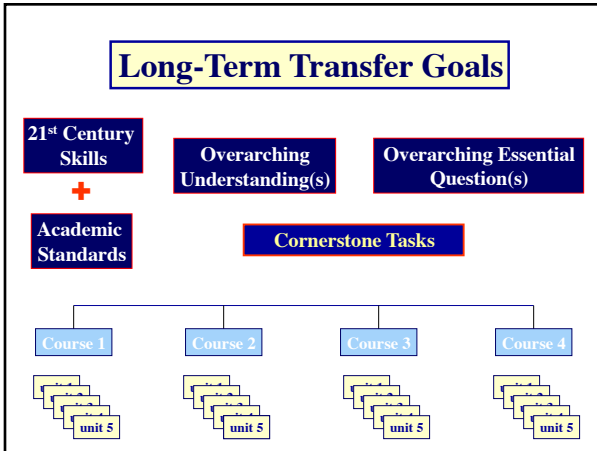
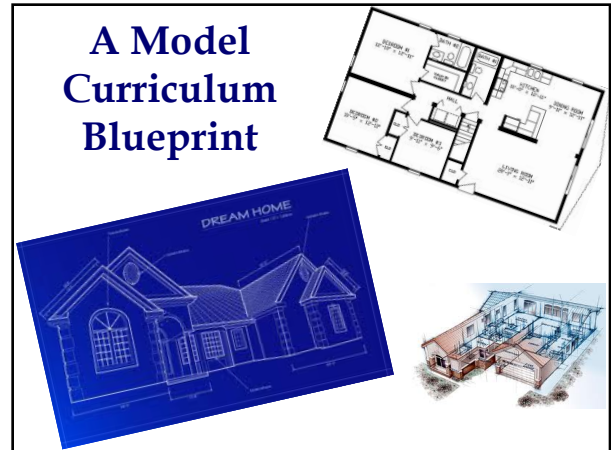
- ✓ authentic tasks and projects
- ✓ academic exam questions, prompts, and problems
- ✓ quizzes and test items
- ✓ informal checks for understanding
- ✓ student self-assessments

Match the Assessment Evidence with the Learning Goals



Stage 2 – Evidence	
Coding	Assessment Evidence
	PERFORMANCE TASK(S)
- accurate illustration of balanced diet	You Are What You Eat: Create a picture book to teach 1st graders about "healthful" eating and health problems that may result from poor nutrition.
- accurate depiction of health problems	Camp Menu: Design a "balanced" 3-day menu for meals and snacks for a weekend camping trip. Explain why your menu plan is both healthy and tasty.
- clear and complete explanation	
- neat and well crafted	OTHER EVIDENCE
	<ul style="list-style-type: none"> • Quiz on the food groups and their nutritional benefits. • Skill check on interpreting nutrition information on food labels. • Test on health problems caused by poor eating. • Daily eating journal with reflections on choices made.

Stage 1 – Desired Results	
Established Goals	Transfer Students will be able to independently use their learning to...
Students will use a knowledge of nutrition to plan appropriate diets for themselves and others. Standard 6-c	consistently make healthful and appropriate dietary choices.
	Meaning
	Acquisition of Knowledge & Skill



Transfer Goal - Writing


- Effectively write in various genres for various audiences and purposes (inform, explain, entertain, persuade, guide, or challenge/change things).

example:

How To Perform a Task

Since you are an accomplished _____, you have been asked to develop a **step-by-step directions** to help **other kids** learn how to do it. Your directions should include **words** and **pictures** to help others learn how to _____ like you.

Example:

What's Your Position? 

After reading _____ (literature or informational texts), write _____ (essay or substitute) that compares _____ (content) and argues _____ (content). Be sure to support your position with evidence from the texts.

Example:


Drone On...



Should drones be regulated?
 After researching **possible commercial uses of drones** and **examining various opinions on the issue**, develop your own position and develop a **(policy brief, editorial, blog)** that argues for your position. Support your position with evidence from your research, while acknowledging competing views.

Example:


What's Your Position?



What makes something funny?
 After reading selections from **Mark Twain** and **Dave Barry**, write a review that **compares their humor** and **argues which type of humor works for a contemporary audience** and **why**. Be sure to support your position with evidence from the texts.

Example:

Involved Citizen




You have an idea that you believe will make your school better, and you want to convince school leaders that they should act on your idea. Identify your audience (e.g., principal, PTSA board, students) and:

1. Describe your idea.
2. Explain why and how it will improve the school.
3. Develop a plan for acting on your idea.

Your idea and plan can be communicated to your target audience in a letter, e-mail, or presentation.

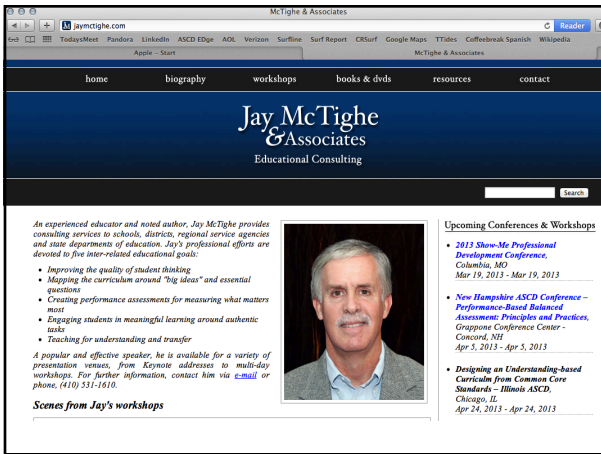
Example:

Involved Citizen



After investigating a current political issue, prepare a position paper or presentation for a public policy maker (e.g., Congress person) or group (e.g., school board, legislative committee). Assume that the policy maker or group is opposed to your position. Your position statement should provide an analysis of the issue, consider options, present your position, rebut opposing positions, and attempt to persuade the public policy maker or group to vote accordingly.

Your position can be communicated in a written report, via a web blog, or delivered as a presentation.



The screenshot shows the website for Jay McTighe & Associates, Educational Consulting. The page features a navigation menu with links for home, biography, workshops, books & DVDs, resources, and contact. Below the navigation is a search bar. The main content area includes a bio for Jay McTighe, a photo of him, and a list of upcoming conferences and workshops. The bio states that he is an experienced educator and author who provides consulting services to schools, districts, regional service agencies, and state departments of education. The list of workshops includes the 2013 Shaw-Mc Professional Development Conference in Columbia, MD (Mar 19, 2013 - Mar 19, 2013), the New Hampshire ASCD Conference - Performance-Based Balanced Assessment: Principles and Practices at the Graggione Conference Center in Concord, NH (Apr 5, 2013 - Apr 5, 2013), and the Designing an Understanding-based Curriculum from Common Core Standards at Illinois ASCD in Chicago, IL (Apr 24, 2013 - Apr 24, 2013).