

Two Big Ideas of UbD

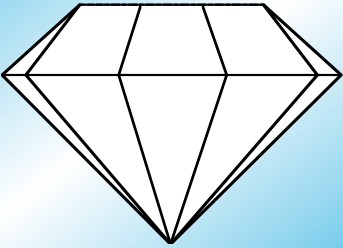
Teach & Assess for Understanding

3 stages of Backward Design

Essential Questions about UbD ?


- ◆ *What is worth understanding?*
- ◆ *How will we know that students really understand?*
- ◆ *What does it mean to “plan backward” and why should we do it?*

What is Understanding?



What is Understanding? ?


- *How do you define it?* p. 258-259
- *What are indicators of understanding?*
- *What are indicators that someone might “know” something without really understanding it?*

T-Chart Process 

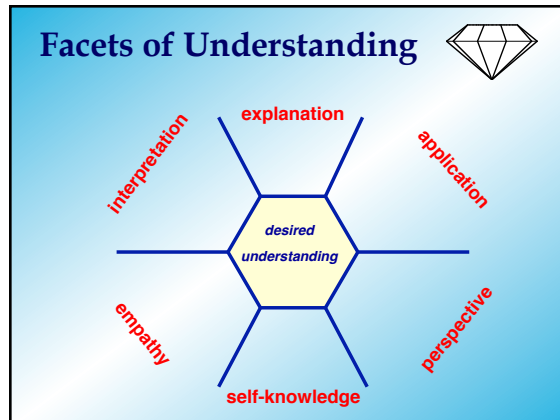
Someone who <i>really</i> understands	Someone who knows a lot but doesn't understand
•	•
•	•
•	•
•	•
•	•
•	•

NAEP 8th-grade mathematics – constructed response test item

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



More than 30% of students: 31, remainder 12



The 6 Facets ...

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

Two Big Ideas of UbD

- Teach & Assess for Understanding*
- 3 stages of Backward Design*

3 Stages of Backward Design

1. Identify desired results. p. 12-13
2. Determine acceptable evidence.
3. Plan learning experiences & instruction.

Think like an assessor, not an activity designer! 

Design assessments *before* you design lessons and activities.
Be clear about the evidence of learning you seek.

This is not Backward Design

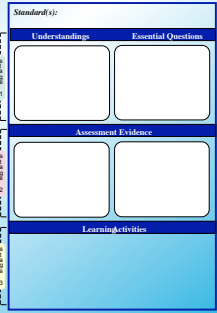
1. Identify desired results.

3. Plan learning experiences & instruction.

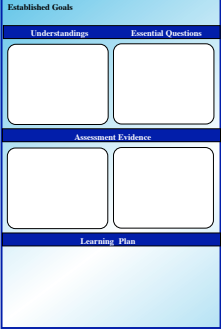
2. Determine acceptable evidence.

The UbD Template...

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



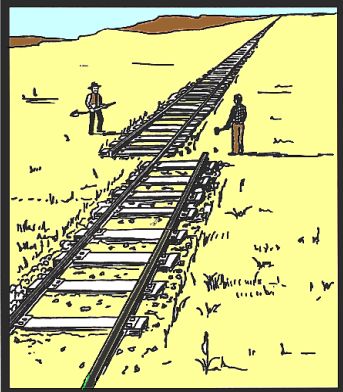
The UBD 1-page template



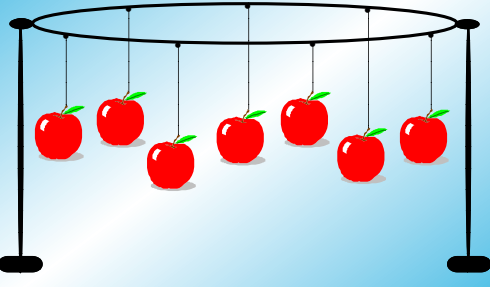
fosters alignment:

- ✓ content standards
- ✓ ‘big ideas’
- ✓ essential questions
- ✓ assessments
- ✓ learning activities

ALIGNMENT




Activity Orientation




An Alternative to “Coverage”

September----- June



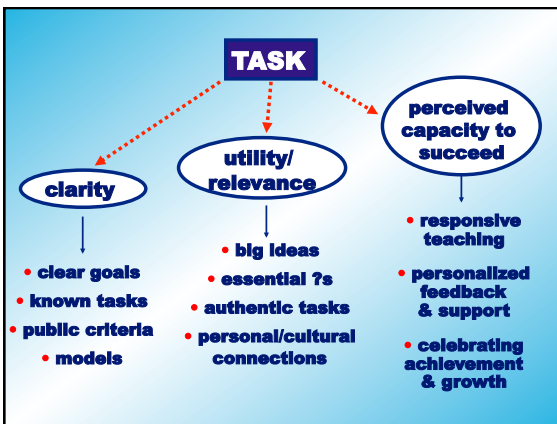
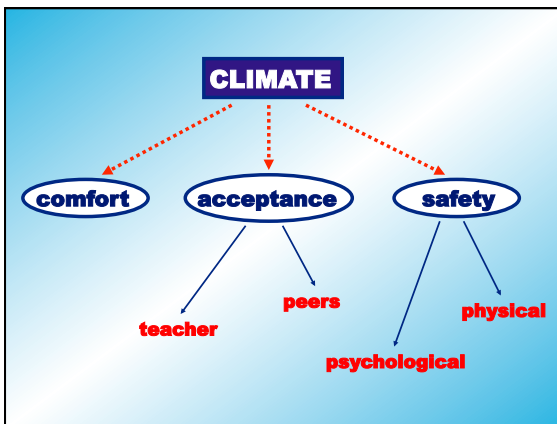
Content standards are the goals, not text coverage.



Use the textbook as a *resource* -- not the syllabus!

To what extent does "backward design" and the Design Template...


- 1) reflect the way in which teachers in your school/district *currently* plan?
- 2) have implications for curriculum planning practices -- for individual teachers, teams *and* district-level curriculum design?



3 Stages of Backward Design

1. Identify desired results.
2. Determine acceptable evidence.
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#3 A Research Finding



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

-- Marzano, *What Works in Schools*

Need to “Unpack” the Content

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

Content
big ideas
standards

Common Core Standards
Mathematics


“...the mathematics curriculum in the United States must become substantially more focused and coherent in order to improve mathematics achievement To deliver on the promise of common standards, the standards must address the problem of a curriculum that is *a mile wide and an inch deep.*”

Common Core Standards
Mathematics

“...That is, what and how students are taught should reflect not only the topics that fall within a certain academic discipline, but also the *key ideas* that determine how knowledge is organized and generated within that discipline. This implies that ‘to be coherent,’ a set of content standards must evolve from particulars ... to deeper structures inherent in the discipline.”

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 – E/LA

Students who are College and Career ready:

Demonstrate independence.
“Students can, without scaffolding, comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and convey intricate or multifaceted information.”

Massachusetts Curriculum Framework, January 2011

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.

**Common Core Standards
Mathematics**

**Model with
mathematics.**

Mathematical modeling



'Big Idea' Understandings:

- **Mathematicians create models to interpret and predict the behavior of real world phenomena.**
- **Mathematical models have limits and sometimes they distort or misrepresent.**

Mathematical modeling



Essential Questions:

- **How can we best model this (real world phenomena)?**
- **What are the limits of this model?**
- **How reliable are its predictions?**

3 Stages of Backward Design

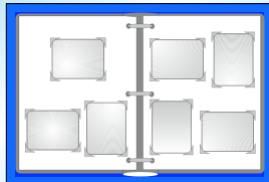
1. Identify desired results.

2. Determine acceptable evidence.

3. Plan learning experiences
& instruction.

**Think "Photo Album"
versus "Snapshot"**

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



**Gather evidence from
a Range of Assessments**

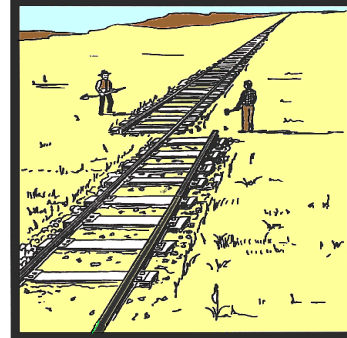


- ✓ **authentic tasks and projects**
- ✓ **academic exam questions, prompts, and problems**
- ✓ **quizzes and test items**
- ✓ **informal checks for understanding**
- ✓ **student self-assessments**

Match the Assessment Evidence with the Learning Goals

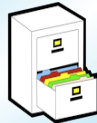


Match the Assessment Evidence with the Goals(s)



Focus on evidence.

Consider a judicial analogy:



Students should be presumed innocent of understanding until proven guilty by a preponderance of evidence.



"Algebra class will be important to you later in life because there's going to be a test six weeks from now."

Practice vs. The Game



Learning and practicing

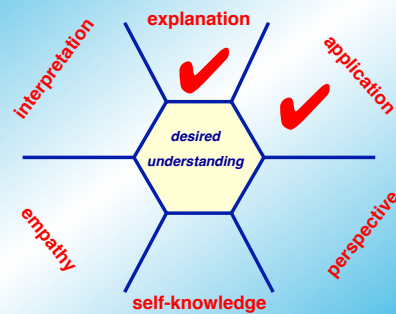
- knowledge
- skills
- strategies




Requires transfer

- autonomous application

Facets of Understanding




example: 

Day Care Center

You have been hired by a day care agency to fence in an area to be used for a play area. You have been provided with 60 feet of fencing (in 4' sections) and a 4' gate. How can you put up the fence so the children will have the maximum amount of space in which to play?


Submit your plan for the playground area. Include a diagram, your calculations, and a summary of why this is the best design.

example: 

State Tour


The State Department of Tourism has asked your help in planning a four-day tour of (*your state*) for a group of foreign visitors. Plan the tour to help the visitors understand the state's history, geography and its key economic assets.

You should prepare a written itinerary, including an explanation of *why* each site was included on the tour.

example: 

Mail-Order Friend


Imagine that you could order a friend from a mail-order friends catalog. Before ordering, think about the qualities that you value in a true friend. Then, make sure that you speak clearly so that the salesperson will know exactly what type of person to send you.

example: 

What's the Trend?

Interpret the data on _____ for the past _____ (time period). Prepare a report (oral, written) for _____ (audience) to help them understand:


- what the data shows
- what patterns or trends are evident
- what might happen in the future

example: 

What's the Trend?

Interpret the data on **our changing heights in 2nd grade** for the past **school year**. Prepare a **chart** for the **1st graders** to help them understand:

- how our class grew this year
- how they are likely to grow next year


example: 

What's the Trend?

Interpret the data on **H1N1 infection spread on each continent** for the past **12 months**. Prepare a **website, Podcast, or newspaper article** to help them understand:


- spread rates and seasonal variation
- spread rates and intl. travel patterns
- spread rates and govt. policies

example:

You Are What You Eat 

Since our class has been studying nutrition, the first grade teachers have asked us to help their students learn about healthful eating. Your job is to create a picture book to use in explaining what a 'balanced diet' is. Include pictures to show health problems that result from poor eating habits.


Task Frame:

Involved Citizen 

Identify a situation (e.g., **issue or problem**) that needs a solution.

- ◆ Analyze the issue. - OR - Define the problem.
- ◆ Consider and evaluate options/possible solutions.
- ◆ Present your position/solution.
- ◆ Address (rebut) alternative positions/solutions.
- ◆ Attempt to convince a target audience to adopt your position or solution through a _____.


example:

Involved Citizen 

After investigating a current political issue, prepare a position paper/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.

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 & 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:


What's Wrong with Holden? 

You are a member of Holden Caulfield's case-review committee at the hospital from which Holden is telling his story. Your task is to write:

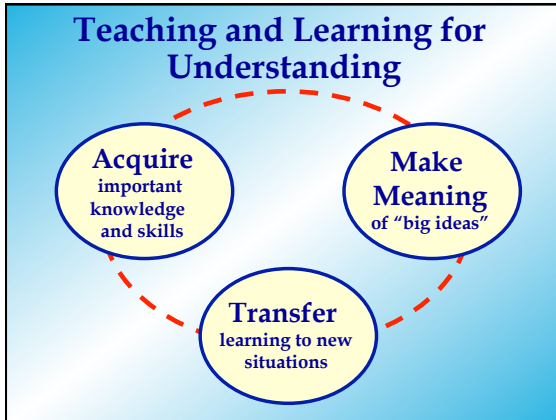
- 1) a diagnostic report for the hospital, OR
- 2) a letter to Holden's parents explaining what's wrong with him.

Base your analysis on Holden's own words.

example:

Death of an Element 

Your element has died.
Write an obituary for your deceased element in which you explain the effects that its absence will have on the chemical world and the human race.



Our Websites

Judy Willis:
www.radteach.com

Jay McTighe:
www.jaymctighe.com

- Resources