

# Understanding by Design An Overview

“ To understand a topic or subject is to use knowledge and skill in sophisticated, flexible ways. Knowledge and skill, then, are necessary elements of understanding, but they are not synonymous with understanding. Matters of understanding require more: Students need to make conscious sense and apt use of the knowledge they are learning and the principles underlying it. ”

– Grant Wiggins and Jay McTighe

## What is the “Big Idea” of Understanding by Design (UbD)?

**Understanding by Design** represents a disciplined way of thinking about the design of curriculum, instruction, and assessment. It pulls together many ideas and processes that have been tested both through research and classroom use and proven to give rise to powerful learning experiences that result in deeper understandings of the core facts, concepts, and generalizations, a.k.a., the “Big Ideas”.

## Coverage vs. Learning

**Understanding by Design** provides a way to move from “**covering the curriculum**” to “**ensuring understanding**”. The learning is achieved not through hoping that the “teaching” of content yields understanding, but through carefully-designed instruction derived from the specific understandings and applications sought. The work of learning provides students with the opportunity to investigate, play with, test, and verify key concepts to make sense of content.

**Understanding by Design** emphasizes the use of a backward design process to develop instruction. Rather than beginning the planning process with activities, materials, or textbook content, backward design begins with identifying the desired long-term results sought.

**The question of the desired accomplishments serves as the focal point for the planning of all curriculum, instruction, and assessment and helps avoid superficial coverage.**

## What does the “backwards design” of UbD look like?

Implementing the backwards design process includes three stages:

- **Stage 1:** identify desired results of instruction
- **Stage 2:** determine acceptable evidence
- **Stage 3:** plan learning experiences and instruction

## Planning the Learning Experience

To achieve both content mastery and “understanding,” a curriculum design must take into account the following goals:

- Engages students in inquiry
- Promotes the transfer of learning
- Provides a conceptual framework for helping students make sense of discrete facts and skills
- Uncovers the “Big Ideas” of the content
- Develops appropriate assessment methods to determine the degree of student understanding, knowledge, and skills
- Considers student misunderstanding or biases that may interfere with instruction

## How Does Prentice Hall Support Understanding by Design?

Beginning with *Penguin Lit 2/e*, *Biology* ©2008, *Prentice Hall Mathematics* ©2008, and *United States History* ©2008, all of our programs will have a defined and integrated UbD strand that includes:

- Essential questions that open up each unit, chapter, and or lesson
- Customizable teaching, planning, and assessment tools to design the most effective instruction
- Inquiry-based approach to engage students in uncovering the “Big Idea”
- Multi-discipline connections that bring context to each learning experience
- Real-world connections, activities, and inquiries that make material relevant and meaningful
- Pedagogy and content that help students connect key concepts, identify patterns, and predict outcomes to support enduring understanding.
- A variety of assessment options offered throughout the lesson that effectively measure the degree of understanding
- Authentic assessment tasks that gauge understanding through real-world applications
- Meaningful extensions to technology

## Where can I find more information?

- <http://www.grantwiggins.org/ubd.html> *Links to a variety of valuable resources.*
- Publications can be purchased via <http://www.ASCD.org>

## Glossary of Terms

**Authentic assessment task:** A task designed to simulate or replicate important, real-world challenges, such as asking a student to use knowledge in contexts where the purposes, audiences, and situational variables are genuine.

**Backward design:** A process for designing a curriculum or unit by beginning with the end in mind and designing toward that end.

**Big ideas:** The core concepts, principles, theories, and processes that should serve as the focal point of curriculum, instruction, and assessment.

**Enduring understandings:** The important ideas or core processes that have lasting value beyond the classroom.

**Essential question:** A provocative question designed to engage student interest and guide inquiry into the important ideas in a field of study.

**Facets of understanding:** The six different kinds of understanding identified in *Understanding by Design*: explanation, interpretation, application, perspective, empathy, and self-knowledge.

The definitions are adapted from the Glossary contained in *The Understanding by Design Handbook* (Grant Wiggins and Jay McTighe), 1999, pp. 273-283.