

Understanding by Design

by Grant Wiggins,
co-author of *Understanding by Design*

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What is Understanding by Design? Understanding by Design (UbD) is a disciplined way of thinking about the design of curriculum, instruction, and assessment. The goal is for students to achieve a deep understanding of important ideas you need to teach. At the core of the UbD framework is the intention for students to break through and get it, not just for the test, but for life.

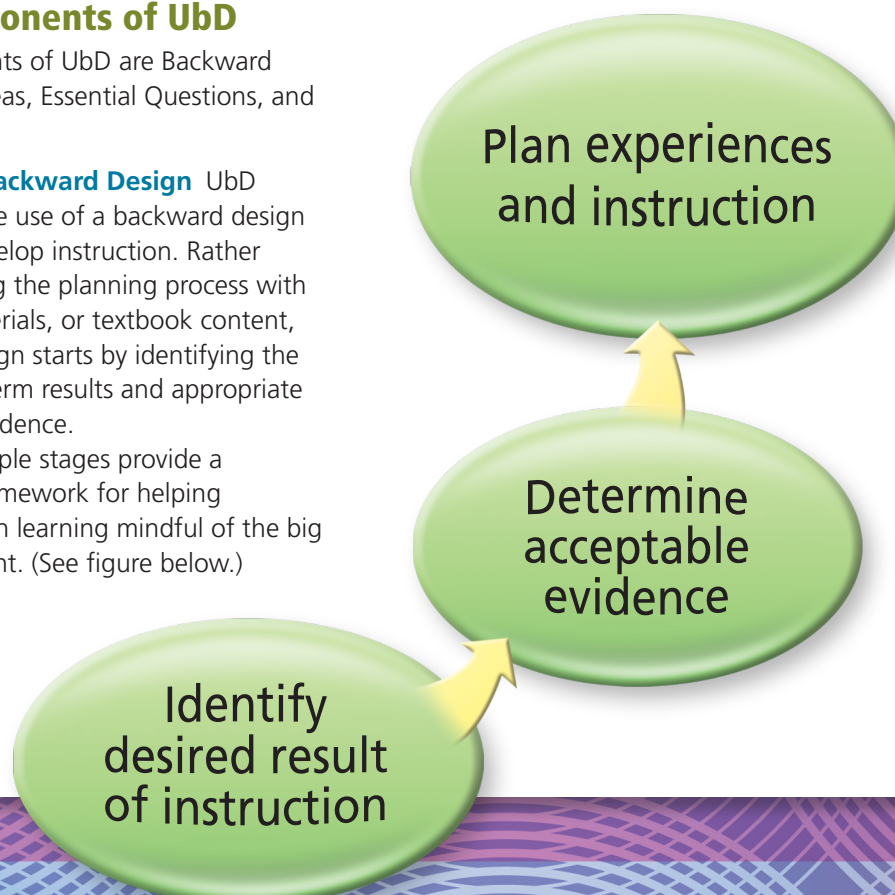
UbD provides a way to move from simply covering the curriculum to ensuring student understanding. The work of learning provides students with the opportunity to explore, test, verify, apply important concepts, and to make sense of the content.

Key Components of UbD

Key components of UbD are Backward Design, Big Ideas, Essential Questions, and Transfer.

Begin with Backward Design UbD 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 starts by identifying the desired long-term results and appropriate assessment evidence.

Three principle stages provide a conceptual framework for helping teachers design learning mindful of the big ideas of content. (See figure below.)

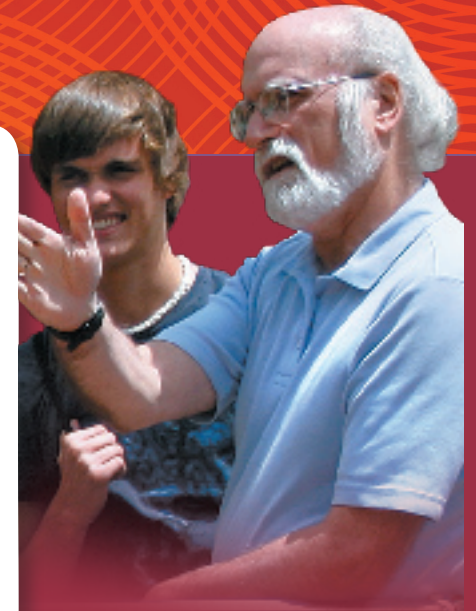


Big Ideas, Big Questions In the UbD framework, big ideas give context and meaning to discrete facts and skills. What is a “big idea”? It is a powerful concept, theme, or issue that a student uses to make sense of otherwise disconnected content elements. Because big ideas are familiar and compelling, students readily connect their previous learning experiences to the new one.

Big ideas allow all students to participate in the learning, because everyone can share their ideas, values, and opinions and connect to content. Learning is thus about examining and informing students’ various points of view—leading to new understanding.

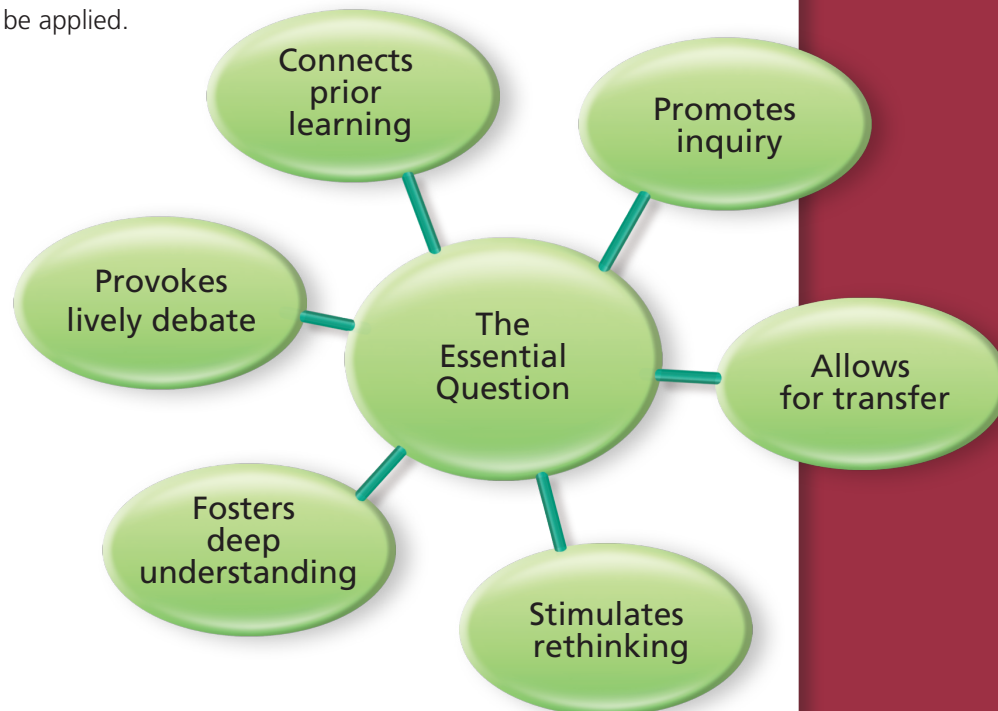
One way of focusing in on a big idea is to use Essential Questions. Essential Questions are designed to challenge preconceived notions and force students to stretch their thinking, using course content to support and inform answers. In doing so, students discover meaning in the content and connections to their own lives. UbD’s use of big ideas and Essential Questions encourages students to not just know something but understand why it matters and how it can be applied.

Transfer Knowledge and Skills The ultimate goal of education is to help students apply or “transfer” what they learn to new and unfamiliar situations. In the UbD framework, transfer is about students being able to stretch the limits, use creativity, and tackle realistic challenges related to core content. Transfer ability means that students can adapt their learning to fit many different settings, issues, and problems—a key aim of schooling. The ability to transfer learning also helps students to succeed with state testing: Students often fail to apply prior learning to new readings, problems, or prompts on the test. When students show that they can transfer knowledge, skills, and understandings, it means they understand the connection between the classroom and the real world. It also means students are more prepared for the real work of the disciplines they study—whether as physicians, journalists, engineers, or artists.



“Build your unit around one idea with power, an idea that helps learners make sense of otherwise isolated content.”

—Grant Wiggins



"At the core of the UbD framework is the intention that students break through, really get it and use it—not just for a test but for life."

Goals for the Learning Experience

To achieve content mastery, deep understanding, and transfer, curriculum design must take into account the following goals:

- Engage students in inquiry and application
- Promote the transfer of learning
- Provide a conceptual framework to help students make sense of discrete facts and skills
- Uncover and use the big ideas of the content

- Develop appropriate assessment methods to determine the degree of student understanding, knowledge, and skills
- Address misunderstandings or biases that interfere with learning
- Fold content standards and school mission into the design work

Achieving these goals requires backward planning, starting with the goals and working backward to what the students and you will actually do. Backward curriculum design lends purpose and conviction to every lesson, every activity, and every assignment.

Stage 1

Identify what students should know, understand, and be able to do.

- Long-term transfer goals
- Key Ideas framed as understandings
- National and state content standards
- Essential Questions
- Specific knowledge and skills

Stage 2

Determine needed evidence for the knowledge, skills, and understandings identified in Stage 1.

- Authentic performance tasks
- Other assessments, labeled by which knowledge, skills, or transfer goals they assess
- Rubrics for each task, focusing on the most important unit goals

Stage 3

Plan learning experiences and instruction.

- Assess students' prior knowledge and skill levels
- Plan activities to ensure a balance of knowledge and skill acquisition, meaning making, and transfer
- Use ongoing assessments to check for understanding and make adjustments