



What is Understanding by Design?

Understanding by Design is the framework of the NNPS online curriculum. It was developed by Grant Wiggins and Jay McTighe and is commonly referred to as 'backwards design'. The backwards design model centers on the idea that the instructional design process should begin with identifying the desired results and then "work backwards" to develop instruction that moves the students to those results rather than to begin by deciding what tasks or activities students will do.

Understanding by Design is

- A design for instruction that promotes deep understanding and student engagement; instructional design from a "results" orientation;
- A "backward design" process that focuses on assessment first and relevant instructional activities last;
- Establishing spirals of learning where students use and reconsider ideas and skill – vs. a linear scope and sequence;
- Thoughtful reflection upon the use and value of knowledge-the real reasons why students need the knowledge
- Challenging professional work that requires self-assessment and reflection concerning classroom practice;



How does the classroom environment foster understanding?

Understanding is most easily developed in a classroom in which teachers and students are partners in learning. The teacher devises the plans but students do the hard work of learning through repeated experiences with the identified ideas and concepts. They do this work as part of a collaborative culture. The 'understanding' classroom is one in which

- All students and their ideas are treated with dignity and respect.
- The big ideas and essential questions are central to the work of the students, the classroom activity, and the norms and culture of the classroom.
- There are high expectations and incentives for all students to come to understand the big ideas and answer the essential questions.
- Big ideas and essential questions are posted and referred to throughout learning experiences.
- Criteria or scoring rubrics are available from the beginning of learning and students routinely use them to assess their work.
- Samples or models of student work are made visible.



What does teaching for understanding look like?

Understanding is bigger than simply parroting back answers to teacher-posed questions. Understanding is deep knowledge that develops from repeated interactions with a concept.

Teaching for understanding means

- **coherence** - big ideas and essential questions clearly guide the design of instruction; assessments and learning activities are aligned with them.
- **assessment**- variety in the ways students demonstrate their understanding (projects, questions, discussions, quizzes, games, tests, etc).
- a design that incorporates instruction and assessment that reflects the **six facets of understanding**; students have opportunities to explain, interpret, apply, shift perspective, empathize, and self-assess.
- **authentic performance**; students to demonstrate their understanding and apply knowledge and skills by completing real world tasks and creating real products.
- **clear criteria and performance standards** for teacher, peer, and self-evaluations of student products and performances
- **reflection and self-assessment**; students to revisit and rethink important ideas to deepen their understanding
- **a variety of resources**. The textbook is only one resource among many (rather than serving as the syllabus).



What are the teacher's responsibilities when using Understanding by Design?

When using Understanding by Design, a teacher's perspective shifts from the small, individual tasks he or she assigns to students. The teacher holds the awareness on all that he or she and the students are engaged in is intentional and is directly related to understanding the bigger concept.

The teacher

- **Informs students** of the big ideas and essential questions, performance requirements, and evaluative criteria at the beginning of the unit.
- **Hooks and holds** students' interest while they examine and explore big ideas and essential questions.
- **Uses a variety** of strategies to promote deeper understanding of subject matter.
- **Facilitates** students' active construction of meaning (rather than simply telling).
- Incorporates the **six facets of understanding** by providing opportunities for students to "unpack their thinking" -- to explain, interpret, apply, shift perspective, empathize, or self-assess
- Uses **questioning, probing, and feedback** to stimulate student reflection and rethinking.
- Teaches **basic knowledge and skills in the context** of big ideas and explores essential questions.
- Uses information from **ongoing assessments** as feedback to adjust instruction and to check for student understanding and misconceptions along the way.
- Uses a **variety of resources** (beyond the textbook) to promote understanding.



What are the learner behaviors expected in Understanding by Design?

Teachers create the conditions and facilitate learning, but it is the students who actually do the hard work of learning. In Understanding by Design, the learners are actively involved in making connections and developing their personal understanding of chosen concepts.

Students see a reason for learning and they

- Can **describe the goals** (big ideas and essential questions) **and performance** requirements of the unit.
- Can **explain what** they are doing and **why** (i.e., how today's work relates to the larger unit goals).
- Are **hooked** at the beginning and remain engaged throughout the unit.
- Can describe the **criteria** by which their work will be evaluated.
- Are engaged in activities that help them to **learn the big ideas and answer the essential questions**
- Are engaged in activities that **promote explanation, interpretation, application, perspective taking, empathy, and self-assessment** (the six facets of understanding).
- Demonstrate that they are learning the **background knowledge and skills** that support the big ideas and essential questions.
- Have opportunities to **generate relevant questions**.
- Are able to **explain and justify** their work and their answers
- Are involved in **self- or peer-assessment** based on established criteria and performance standards.
- Use the criteria or rubrics to **guide and revise their work**.