HAMILTON-WENHAM REGIONAL SCHOOL DISTRICT

Jay McTighe & Associates
Educational Consulting

District-Wide Curriculum FAQs

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The following questions are either from discussions across the district, and/or questions that commonly arise when engaging deeply with Understanding by Design® *as a framework, a thinking and planning process for district-wide curriculum design. Here are some explanations, along with information about related districtwide plans. If you have other questions, let us know and we'll get back to you with responses and/or we would be glad to discuss further.*

1. What is curriculum?[A]

Standards specify established learning goals. Standards are not curriculum; they provide the framework upon which curricula are developed. Standards are like the building code (for a house); architects and builders must attend to them, but they are not the *purpose* of the design. The house is designed to meet the client's needs in a functional and pleasing manner, while also meeting the building code.[1]

Curriculum, aligned to established standards, provides a guaranteed set of desired results (as specified in Stage 1 of the *Understanding by Design®* framework) – a mix of knowledge, skills, conceptual understandings, transfer abilities, and habits of mind.[1] Curriculum needs to specify clearly the appropriate balance between breadth and depth of coverage in terms of student learning outcomes. Curriculum for Understanding® provides ample opportunity for students to apply their knowledge in a variety of contexts and conditions. This helps them transfer their learning to new situations and better prepares them for future learning.[2]

2. What is *Understanding by Design®*?[B]

The *Understanding by Design®* (*UbD®*) framework offers a planning process and structure to guide curriculum, assessment, and instruction. Its two key ideas are contained in the title: (1) focus on teaching and assessing for understanding and transfer of learning, and (2) design "backward" from those ends. In Stage 1, we consider our goals, examine established content standards, and review curriculum expectations. In Stage 2, we consider the assessment evidence needed to document and validate that the targeted learning has been achieved. Stage 3 plans the most appropriate lessons and learning activities to address the goals identified in Stage 1.[3]

The *UbD®* framework is based on eight principles:[3]

- UbD is a way of thinking purposefully about curricular planning and school reform, with a 3-stage design process (Desired Results, Evidence, Learning Plan); it is not prescriptive.
- UbD's primary goal is understanding: make meaning of "big ideas" and transfer learning.
- UbD "unpacks" standards into relevant Stage 1 elements and Stage 2 assessments.
- Understanding is revealed when students autonomously transfer their learning through authentic performance. Indicators are the 6 *Facets of Understanding* – the capacity to

explain, interpret, apply, shift perspective, empathize, and self-assess.

- Teachers are coaches of understanding, not merely purveyors of knowledge or activities. They support student meaning-making and transfer, and adjust to achieve desired results.
- Planning is best done "backward" from desired results; the 3 stages must align.
- Regular curriculum review against design standards enhance quality and effectiveness.
- UbD reflects continuous improvement; the results of curriculum design – student performance – inform needed adjustments.[3]

3. What are Transfer Goals and how do they fit in?[C]

The bottom-line goal of education is transfer. The point of school is not to simply excel in each class, but to be able to use one's learning in other settings. Learning priorities are established by long-term performance goals—what it is we want students, in the end, to be able to do with what they have learned. Accordingly, Stage 1 focuses on "transfer of learning." Essential questions in Stage 1 are used to engage learners in thoughtful "meaning making" to help them develop and deepen their understanding of important ideas and processes that support such transfer.[3] Transfer Goals are long-term, performance-based, apply to new situations autonomously (on their own), and call for using habits of mind (i.e., good judgment, self-regulation, persistence, and understanding/knowledge/skill).[C] Transfer Goals should reinforce connections to 21st Century skills and the school district core beliefs and mission/vision.

4. Why are we building a district-wide curriculum?

Some ideas are clearly bigger than others, that is, conceptually more general, with greater transferability and impact. Ideas with that great a reach should anchor courses and programs. No single unit could possibly do justice to the most complex ideas. The same process, and key elements in the UbD template (i.e., transfer goals, understandings, essential questions, performance tasks), frames larger-scale courses and grade-level curriculum. By agreeing on core ideas and assessment tasks, these overarching elements serve as a blueprint for all units and the connections between them.[4] The term "overarching" conveys the idea that these transfer goals, understandings, and essential questions are expected to be addressed across grades with application to a variety of topics, problems, texts, and contexts.[1]

In the HWRSD, building a curriculum that spirals around big ideas, essential questions, and core assessments will provide coherence, common expectations vertically across grades and content areas, and reinforce connections to our core beliefs and mission. The evaluation process and goals also make strong connections to our curriculum work, and this process supports collaborative professional dialogue about learning expectations and outcomes for all students.

5. How, and when, will we create this district-wide curriculum?

The creation of a district-wide curriculum will be a multi-year process that will involve all faculty members. We begin with Stage 1 of the UbD process, or the development of long-term Transfer Goals, Overarching Understandings, and Essential Questions for each content area. During fall 2015, nine "Task-Force Teams" of teachers and administrators will develop **draft** Transfer Goals for the areas listed below. These draft documents will be reviewed and revised by the entire faculty during our November 2nd Workshop Day and finalized by January 2016.

- English/Language Arts
- Fine Arts
- Guidance and School Counseling

- Integrated Media
- History and Social Science
- Mathematics
- Science, Technology and Engineering
- Wellness, Physical Education and Family/Consumer Science
- World Languages

6. What comes next, after Transfer Goals?

The second and third categories are overarching Understandings and Essential Questions. Understandings state what skilled performers will need in order to effectively transfer their learning to new situations. Essential Questions engage learners in making meaning and deepening their understandings. The fourth category, Cornerstone (Performance) Tasks, are intended to engage students in applying their knowledge and skills in an authentic and relevant context. Like a cornerstone anchors a building, these tasks recur across grades to anchor the curriculum around the most important performances we want learners to do on their own.[1]

In the HWRSD, during the second-half of this school year, the Task Force teams will develop **drafts** of Overarching Essential Questions and Overarching Understandings for their specific curricular areas. These drafts will be reviewed and revised at our March Workshop Day, with a final completion date scheduled for June 2016. Our work during 2016-2017 will be "Stage 2" of the UbD process, which focuses on determining the appropriate assessment evidence needed to document success and achieve the Stage 1 Desired Results.

7. Transfer Goals are long-term, so what about younger students who can't perform them yet?

The goal of transfer (Stage 1) requires an instructional plan (Stage 3) that helps students become increasingly autonomous. Assessments (Stage 2) need to determine the degree of autonomy.[C] In the HWRSD, we will develop Transfer Goals with the intent of full demonstration in 12th grade and beyond. Afterward, we will design units that specify what the building blocks and evidence of learning *at each grade* should look like in order to achieve those long-term goals.

8. How many Transfer Goals should we develop?

We will develop one set of K-12 Transfer Goals for each content/program area. The number will vary for each content/program area. A useful set typically ranges from 3-7 Transfer Goals.

9. What will happen to all the work we've done in prior years and last summer?

Curriculum development is a dynamic process that requires us to constantly evaluate and revise in order to achieve our desired student learning outcomes. The curriculum documents we have developed in the last few years have been invaluable in getting us to a better understanding of the Massachusetts Curriculum Frameworks, and what is expected of students at each grade level.

Our development of the District-Wide Curriculum (Long Term Transfer Goals, Overarching Understandings, and Overarching Essential Questions) is a great opportunity for us to "check our work" and make sure we're all working towards the same ends in grades PreK-12. Most of the curriculum documents we've already created will probably remain in place with some minor revisions. We may also find that some of the units and lessons we've developed are *not* aligned with our Overarching Goals and will need more extensive revision.

10. How does this district-wide curriculum work relate to my classroom and my students?

To design curriculum backward from the goal of autonomous transfer requires a deliberate and transparent plan for helping students rely less and less on teacher scaffolds. Transfer is about intelligently and effectively drawing from your repertoire, independently, to handle new situations on your own. If a curriculum simply marches through lists of content knowledge and skills without cultivating independent performance, graduates will be unprepared for the demands of college and the workplace. Accordingly, we would see an increase in problem- and project-based learning, small group inquiries, and independent studies as learners progress through the curriculum across the grades.[1]

In the HWRSD, carefully articulating our shared long-term goals will help us work smarter, collaboratively, and backwards, to ensure that instruction and assessments at each grade level are progressing and preparing students toward those goals.

11. Why did we focus on *UbD* during Opening Day (Sept. 1) of this school year (2015-16)?

The purpose of focusing on UbD on Opening Day was to give us all a shared experience with *Understanding by Design*® from which to draw on in our future work. While many of us in the HWRSD have had some exposure to the ideas and processes that make up *Understanding by Design*®, there are just as many of us who have not. We will continue to learn more about each of the three stages of the UbD framework as we progress in our curriculum work.

12. Does everything we teach need to be taught for deep "understanding" and "transfer"? Aren't there just some facts you simply need to memorize and some basic skills you can learn only by drill and practice?

Although there are certainly basics that must be mastered, it does not follow that rote learning is the only or best means of achieving these ends. Think of the unfortunate way many students (maybe even you) learned math facts (e.g., cross-multiplying fractions or using the quadratic formula) without understanding why a particular procedure works, why it matters, and when you would ever use it in the real world. In other words, even though you "knew" the fact, you didn't necessarily understand its meaning or its applicability. So you didn't know when to use it. This point is evident in Bloom's taxonomy, where "synthesis" equals creative and flexible performance, not just the ability to recite someone else's idea.[5]

This is why we need to distinguish rote or skill from transfer (performance) when we frame our goals in Stage 1. When we lose sight of the desired performance goals by reducing them to lists of discrete facts and skills, and teaching and testing each in isolation, many of our students cannot perform in or adapt knowledge and skill to unfamiliar situations (i.e., transfer). They can only recall and plug bits of learning into highly prompted, familiar-looking exercises.[5]

13. I have heard that the UbD® framework de-emphasizes the teaching of content knowledge and skill to focus on more general understanding. Is this your recommendation?

On the contrary, the UbD® framework specifies what students will know and be able to do (knowledge and skills) in Stage 1. However, we contend that content acquisition is a means, not an end. The UbD® framework promotes not only acquisition, but also the student's ability to know why the knowledge and skills are important, and how to apply or transfer them in meaningful, professional, and socially important ways.[3]

14. Our state/national tests use primarily multiple-choice and brief, constructed response items that do not assess for deep understanding. How can we prepare students for these high-stakes standardized tests?

For many educators, instruction and assessing for understanding are viewed as incompatible with high-stakes accountability tests. This is based on a flawed assumption that the only way to raise test scores is to cover those things that are tested and practice the test format. By implication, there is no time for or need to engage in in-depth instruction that focuses on developing and deepening students' understanding of big ideas. Such an approach mistakes the measures for the goals—the equivalent of practicing for your annual physical exam to improve your health![3]

This document was developed by Ronit Carter, Education Consultant, McTighe & Associates, and Mike Harvey, Superintendent, Hamilton-Wenham Regional School District. Explanations of UbD-related topics are quoted from a variety of publications written by Jay McTighe and Grant Wiggins, co-founders and authors of *Understanding by Design*®. Permission is granted to share within the district, provided that proper credit is attributed (see References below).

REFERENCES

1. Jay McTighe and Grant Wiggins (2012), "From Common Core Standards to Curriculum: Five Big Ideas." The New Hampshire Journal of Education.
2. Principles of Curriculum for Understanding® © 2015 Jay McTighe and Grant Wiggins
3. Jay McTighe and Grant Wiggins, "Improve Curriculum, Assessment, and Instruction Using the *Understanding by Design*® Framework." ASCD 2014.
4. Grant Wiggins and Jay McTighe. *Understanding by Design* (Second Edition). ASCD 2005.
5. Grant Wiggins and Jay McTighe. *The Understanding by Design Guide to Advanced Concepts in Creating and Reviewing Units*. ASCD 2012.

HANDOUTS (See the following pages)

A. *Principles of Curriculum for Understanding* (handout)
B. *UbD in a Nutshell, Guiding Principles of* Understanding by Design® (handout)
C. *Transfer Goals*, Understanding-based Curriculum (handout)

Principles of Curriculum for Understanding*

Students presented with vast amounts of content knowledge that is not organized into meaningful patterns are likely to forget what they have learned and to be unable to apply the knowledge to new problems or unfamiliar contexts (Haidar, 1997). Curriculum for understanding provides ample opportunity for students to apply their knowledge in a variety of contexts and conditions. This helps them transfer their learning to new situations and better prepares them for future learning (Bransford and Schwartz, 2000). Providing students with frequent opportunities to apply what they learn in multiple contexts requires a reallocation of instructional time. Allowing time for in-depth learning means decisions must be made about what knowledge is of most worth. For this reason, the curriculum needs to specify clearly the appropriate balance between breadth and depth of coverage in terms of student learning outcomes.

A mathematics or science curriculum for advanced study that promotes learning with understanding:

1. Structures the concepts, factual content, and procedures that constitute the knowledge base of the discipline around the organizing principles (big ideas) of the domain.
2. Links new knowledge to what is already known by presenting concepts in a conceptually and logically sequenced order that builds upon previous learning within and across grade levels.
3. Focuses on depth of understanding rather than breadth of content coverage by providing students with multiple opportunities to practice and demonstrate what they learn in a variety of contexts.
4. Includes structured learning activities that, in a real or simulated fashion, allow students to experience problem solving and inquiry in situations that are drawn from their personal experiences and real-world applications.
5. Develops students' abilities to make meaningful applications and generalization to new problems and contexts.
6. Incorporates language, procedures, and models of inquiry and truth verification that are consistent with the accepted practice of experts in the domain.
7. Emphasizes interdisciplinary connections and integration and helps students connect learning in school with the issues, problems, and experiences that figure prominently in their lives outside of the classroom.

*Source: Committee on Programs for Advanced Study of Mathematics and Science in American High Schools

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UbD in a Nutshell

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Guiding Principles of Understanding by Design

1. UbD is a way of thinking purposefully about curricular planning and school reform. It offers a 3-stage design process, a set of helpful design tools, and design standards - not a rigid program or prescriptive recipe.

2. The primary goal of UbD is student understanding: the ability to make meaning of "big ideas" and transfer learning.

3. UbD "unpacks" and transforms Content Standards into the relevant Stage 1 elements and appropriate assessments in Stage 2.

4. Understanding is revealed when students autonomously transfer their learning through authentic performance. Six facets of understanding - the capacity to *explain, interpret, apply, shift perspective, empathize*, and *self assess* - serve as indicators of understanding.

5. Teachers are coaches of understanding, not mere purveyors of content or activity. They design for and support "meaning making" and "transfer" by the learner; and adjust to achieve intended results.

6. Planning is best done "backward" from the desired results and the transfer tasks that embody the goals. The 3 Stages (Desired Results, Evidence, Learning Plan) must align for the unit to be most effective.

7. Regular reviews of curriculum against design standards enhance curricular quality and effectiveness.

8. UbD reflects a "continuous improvement" approach. The results of curriculum designs - student performance - informs needed adjustments.

Key Questions of Backward Design

Stage 1: Desired Results

- *What long-term transfer goals are sought?*
- *What meanings should students make in order to arrive at important understandings?*
- *What essential questions will students explore?*
- *What knowledge & skill will students acquire?*
- *What established goals/Standards are targeted?*

Stage 2: Evidence

- *What performances and products will reveal evidence of meaning-making and transfer?*
- *By what criteria will performance be assessed, in light of Stage 1 desired results?*
- *What additional evidence will be collected for all Stage 1 Desired Results?*

Stage 3: Learning Plan

- *What activities, experiences, and lessons will lead to achievement of the desired results and success at the assessments?*
- *How will the learning plan help students of Acquisition, Meaning Making, and Transfer?*
- *How will the unit be sequenced and differentiated to optimize achievement for all learners?*
- *Are all three stages properly aligned?*

TRANSFER GOALS

Definition

Transfer Goals highlight the effective uses of understanding, knowledge, and skill that we seek in the long run; i.e., what we want students to be able to do when they confront new challenges – both in and outside of school. There are a small number of overarching, long-term transfer goals in each subject area. For example, a long-term aim in mathematics is for students to be able to solve "real world" problems on their own. For example, a long-term transfer goal in history is for students to apply the lessons of history when considering contemporary issues.

In every case, the ability to transfer learning manifests itself in not just one setting but in varied situations. Transfer is about independent performance in context. You can only be said to have fully understood if you can apply your learning without someone telling you what to do and when to do it. In the real world, no teacher is there to direct and remind you about which lesson to plug in here or there. Transfer is about intelligently and effectively drawing from your repertoire, independently, to handle new contexts on your own. In the real world, no teacher is there to direct and remind you about which lesson to plug in here or there: transfer is about intelligently and effectively drawing from your repertoire, independently, to handle particular contexts on your own. The goal of transfer thus requires that an instructional plan (in Stage 3) help the student to become increasingly autonomous, and the assessments (in Stage 2) need to determine the degree of student autonomy.

Transfer goals have several distinguishing characteristics:

- They are long-term in nature; i.e., they develop and deepen over time.
- They are performance based; i.e., require application (not simply recall).
- The application occurs in new situations, not ones previously taught or encountered; i.e., the task cannot be accomplished as a result of rote learning.
- The transfer requires a thoughtful assessment of which prior learning applies here; i.e., some strategic thinking is required (not simply "plugging in" skill and facts).
- The learners must apply their learning autonomously on their own, without coaching or excessive hand-holding by a teacher).
- Transfer calls for the use of habits of mind; i.e., good judgment, self regulation, persistence along with academic understanding, knowledge and skill.

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