Getting Ready for Common Core Aligned Assessments

In 2012-2013, the NYSED assessments for Grades 3-8 will be based solely on the NYS Common Core Learning Standards. To prepare for this change, districts are preparing new curriculum maps, units, and lessons. Curriculum maps and units organize the standards into a progression of concepts to be taught. The development of lessons guides the change in teaching practice.

Common Core ELA influences other content
The ELA Common Core standards reach beyond the ELA classroom to the social studies, science, and mathematics classroom. Teachers of these subjects also need to be aware of the Common Core expectations for their classes beginning in 2012-2013 even though the content standards have not changed. Students in these subjects need to be able to (New York State P-12 Common Core Learning Standards for English Language Arts & Literacy, p. 76)

- Cite specific textual evidence when writing
- Analyze the development of central ideas
- Determine the meaning of words and phrases as they are used in the text
- Assess how purpose shapes the content and style of text
- Evaluate content presented in diverse formats and media
- Evaluate the validity of the reasoning of the author
- Analyze how two or more texts address similar themes
- Comprehend complex informational text independently

In a ninth grade science class students may be expected to

- Trace the explanation of a complex process in the text
- Follow precisely a complex multi-step procedure when carrying out an experiment
- Determine the meaning of domain-specific words as used in scientific text relevant to ninth grade science
- Analyze the structure of the relationships among concepts
- Translate quantitative information expressed in words into a table
- Compare and contrast findings presented in a text to those from other sources

Lesson structure
These expectations need to be developed through the teacher’s lesson plan. There are various ways that teachers might organize effective lessons into a cohesive unit (Marzano (2007), p. 174). A social studies teacher may use the bombing of Hiroshima and Nagasaki to analyze the beliefs and values that underlie the political decision to use atomic weapons to end World War II. His/her guiding question may be, “What are the beliefs and values that underlie the political decision to use atomic weapons?” This question will guide his decisions about what questions to ask and what text to discuss more deeply.

Curriculum is a collection of academic tasks. The manner in which teachers design and organize these tasks affects student learning (Marzano, p. 175). Lesson are designed
with multiple segments. “The decisions teachers make about the focus of units of instruction, the lessons within those units, and the segments within each lesson provide the infrastructure for effective or ineffective teaching” (Marzano, p. 176).

The first step in creating a unit is to identify the focus of the unit (Marzano, p. 177). The unit cited above may include three information goals that students will understand:

- The major events leading to the development of the atomic bomb
- The major factors involved in making the decision to use atomic weapons
- The effects of dropping the bombs

The Hiroshima social studies unit had a fourth goal focused on the issue of examining the values and beliefs that led to the decision to use the atomic bomb. Activities that helped students learn the content addressed in these goals would be included and activities that did not focus on the goals would be left out of the unit.

The teacher designing the lessons for the Hiroshima unit needed to make decisions about the specific academic content to include (Marzano, p. 182) and about what resources will be used during instruction. Considerations may be what questions to ask, what materials students will read, what demonstrations will the teachers use, or what DVD or video is appropriate.

“An effective lesson has a definable structure” (Marzano, p. 180). An adaptation of the Madeline Hunter lesson structure might be Anticipatory Set (Do Now), Objective (What will students learn?), Input (direct instruction and modeling, check for understanding), Guided Practice (individual or group work), Homework (independent practice), and Exit Task. The input segment is critical to successful outcomes for the student. The teacher’s role during this segment is active. Researchers (cited in Marzano, p. 34) have found that for effective student learning, teachers need to organize the learning for each lesson into small steps.

**Procedural and declarative knowledge**

The Madeline Hunter design works well for procedural knowledge. Procedural knowledge refers to skills, strategies, or processes such as performing long division, shooting a free throw, or editing a composition. Students need to practice procedural knowledge. Practice is needed to achieve competence (Marzano, p. 62). The writers of the Common Core support this with the emphasis on fluency in mathematics.

Declarative knowledge refers to information such as the major events of the Civil War, characteristics of a genre, characteristics of the process of percolation. Declarative knowledge is developed through reviewing and revision. Revision is important to declarative knowledge. Students begin with fuzzy knowledge and overtime with extended exposure, the learner “sharpens and adds to his knowledge base” (Marzano, p. 63). Madeline Hunter’s lesson structure can be adapted for declarative knowledge.

When teaching declarative knowledge the teacher is guiding the student to a deeper understanding through comparing, classifying, creating metaphors, creating analogies, and analyzing errors” (Marzano, p. 185). These activities can begin in class and be completed as homework. If students are learning procedural knowledge such as how to use proportions to convert between metric units, this “should not be assigned as homework until students have reached a level at which they can perform the procedure independently” (Marzano, p. 185). This would mean that Grade 3 students should not be asked to memorize multiplication facts for fluency until they have had sufficient practice in class with visual and manipulative practice to understand multiplication. If the students are working on a research project the design of the lesson is different. Students are gathering information for a hypothesis using the library and the Internet. Teachers will be providing feedback during the different aspects of this type of unit. Students will be generating rough drafts of various sections of their projects for comment. Teachers are “facilitating the processing of information, modeling a task, and monitoring the execution of a task.

For the Common Core Learning Standards to be effectively taught, administrators and teachers need to evaluate curriculum and instruction practices. The transition to the Common Core is not just about the content that is now expected on a grade level but also about how that content is delivered. Delivery begins with the district’s curriculum map but also includes how lessons are designed and delivered.