

## Curriculum Mapping

**Curriculum Mapping** addresses critical questions for the department:

- Who is doing what?
- How does our work align to our goals?
- Are we operating efficiently and effectively? (Jacobs2004)

As teacher collect resources and favorite materials, the curriculum can become cluttered. Curriculum mapping “enables teachers to identify gaps, redundancies, and misalignments” (Jacobs, 2004, p. vi). The template is similar to identifying the Power Standards.



Sample Template for Curriculum Maps	August	September	October	November
Content: Big Ideas /Essential Questions				
Skills				
Vocabulary				
Guiding Questions				
Classroom Activities/Resources				
Assessments				

This curriculum review process allows teachers to align what is happening in the classroom with mandated standards and tests. Assessments need to provide evidence that students understand the Big Ideas. Data collected from student assessments should be used to evaluate instruction. Curriculum mapping is the first step to writing short cycle assessments. We need a clear plan for teaching the standards. Teachers need to write assessments at the required skill level. A short-cycle assessment every six to nine weeks will get students ready to tackle the OAT or the OGT. Long range planning is proactive.

Curriculum mapping facilitates continuity across grade levels. When do we teach students to explain their reasoning? What graphic organizers are introduced and when are they introduced? Are we concerned with how frequently the content and skills are addressed over time or within a school year? Are skills, activities, and assessments aligned?

Let’s avoid random acts of teaching. Teachers need to develop instructional strategies that align to the content and the level of skill attainment—application, analysis, and synthesis. For example, in our science curriculum we need to place **less emphasis** on knowing scientific facts and information and covering many science topics. **More emphasis** should be placed on understanding scientific concepts and developing abilities of inquiry, integrating all aspects of science content; and studying a few fundamental science concepts.

Once curriculum maps are written for each subject area at both seventh and eighth grade levels, then middle school teachers can collaborate to write short-cycle assessments. Whereas the OAT and OGT are summative assessments, short cycle assessments are formative. They *inform* instruction. Test results determine where additional instruction is generally needed. Student results inform the teacher what lessons to prepare for the class. Teachers make instructional decisions and design lessons based on test data. Formative assessments are used to modify and validate instruction.

MIDVIEW LOCAL  
SCHOOL DISTRICT

# Curriculum Update

This publication is brought to you by Dr. Cathy Pugh, Director of Curriculum

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### SPECIAL POINTS OF INTEREST:

- A new measurement piece will be added to the local report card—Value-Added analysis.
- Power Standards represent the “safety net” of standards that teachers need to make sure every student learns before advancing to the next grade or course.
- Curriculum Mapping to avoid random acts of teaching

## Springing *FORWARD*



Soon we will complete a social studies textbook adoption K – 12 for the 2007-2008 school year. In addition, high school teachers have been working on identifying the Power Standards for ninth and tenth grade courses. You will read an article about Power Standards in this edition of the *Curriculum Update*.

Midview has made terrific strides. We cannot lose ground. We need to keep using proven strategies to align curriculum and instruction. At the middle school, teachers will map out their curriculum for the year. This is the first step to writing short cycle assessments. An article to introduce the process of curriculum mapping is also included in this edition.

Art teachers K – 12 have met all year to plan a district-wide art show on April 28 at Midview East Elementary. Evidence is now emerging that shows that arts education can have powerful effects on student achievement (Heath, 1999). Artistic endeavors build confidence; offer students the opportunity to discover their creative potential, and the chance to investigate careers in visual communication. This is an opportunity for Midview students to showcase their visual acuity and technical skills.

Fourth grade teachers are participating in *Veggie U*. Veggie U’s goal is to change the eating habits of our nation’s children by teaching them healthy food choices. Each Veggie U kit includes a four foot grow light, planting flats, soil, seeds, earthworms, root view boxes, instructional videos, and the curriculum to complete the project. After students harvest their produce, they will create a feast to enjoy the “vegetables” of their labor.

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### Value-Added to Show Student Growth

There is a new measurement piece that will be added to the local report card—Value-Added analysis. School and district performance has been based on the number of students who passed the state tests. Value-added analysis shows how each student progressed from one year to the next. Achievement tests measure student performance against a standard. Value-added measures progress from year to year. Value added “estimates each student’s academic growth over his or her school year in each subject” ([www.BattelleforKids.org](http://www.BattelleforKids.org)). Teachers have reported that achievement tests do not reflect the current group of students. Value-added will solve this concern.

Two Midview teachers, Becky McMillen and Marsha Pavlenda, have been trained as District Value-Added Specialists. We want to train two additional teachers so each elementary building and the middle school will have a specialist available to answer teacher questions when value added is introduced next year. The following scenario from the value-added guide provides a depiction clarifying this progress measure.

More on next page...

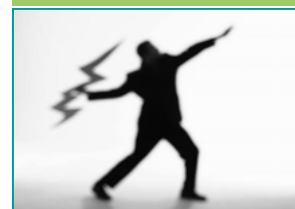
“It’s the beginning of another school year, and Mrs. Davis greets her class of 23 new students. As she welcomes each student into the classroom, she knows that some students can read well, while others can’t name the basic colors in the primary crayon box. Sound familiar? The reason for this discrepancy are many. Mrs. Davis cannot control and should not be held accountable for the level at which her students enter the classroom. However, Mrs. Davis does control the progress her students make while they are in her classroom. Regardless of whether her students start the year below, at, or above grade level, all of her students will make progress during the school year.”

The action steps for introducing the concepts and outcomes of value-added analysis are slated to begin next year. However, conversations about value-added have begun. It is our intent to give you a brief introduction and show that we have plans to bring everyone onboard. If you want additional information, visit [www.BattelleforKids.org](http://www.BattelleforKids.org).

<b>OUTCOME</b> Elementary and Middle School Principal awareness and understanding of how to access, navigate, and interpret the value-added measure. Train two additional elementary teachers so Midview has one DVAS teacher at each building.		<b>OUTCOME MEASURE</b> Principals and DVAS teachers will demonstrate proficiency (85%) through an online access, navigation and interpretation activity.		
Action Steps to Achieve Outcome	Resources Needed	Person(s) Responsible	Timeline	Results (Completion, Quality & Consistency, etc.)
At an administrative meeting, Midview West and Midview North principals select building-level DVAS	None	Cathy Pugh	August 2007	Two individuals confirmed to DVAS trainers by September.
DVAS trainers meet to plan training day for principals and new DVAS.	Substitutes (2) DVAS binders, computers	Marsha Pavlenda Becky McMillen Cathy Pugh	September 2007 (or when value added data is available online)	PowerPoint presentation Instructional materials Evaluation Form
Conduct training. At this training, principals and new DVAS will collaborate to determine teacher awareness training.	Substitutes (4) Instructional materials; binders	Marsha Pavlenda Becky McMillen Cathy Pugh	October 2007	This group will decide the timeline and best way to implement value-added staff awareness training

<b>OUTCOME</b> All K-8 teachers will be introduced to the value-added progress measures in Ohio’s accountability system.		<b>OUTCOME MEASURE</b> Teachers will demonstrate awareness by responding to a short assessment of presentation objectives with 85% accuracy.		
Action Steps to Achieve Outcome	Resources Needed	Person(s) Responsible	Timeline	Results (Completion, Quality & Consistency, etc.)
Make a presentation to each staff at our three elementary and middle school buildings.	Instructional Materials SmartBoard/Lectern Computer	Building Principal Marsha Pavlenda Becky McMillen Cathy Pugh 2 additional DVAS	November/ December 2007	Short Assessment Work in small groups Assess learner needs
Form a Data Analysis Cohort to begin interpreting Midview value-added data.	Time Substitutes Online data	Cohort	March/April 2008	Plan next level of staff training to expand understanding of value-added measures.

# Power Standards



Content Standards have sharpened and focused curriculum, instruction, and assessment. At the very least, we are all on the same page. However, we have all come to realize that the standards are too numerous to be effectively taught. *Power Standards* are prioritized standards. They represent the “safety net” of standards that teachers need to make sure every student learns before advancing to the next grade or course. All standards need to be taught. Some require more depth than others.

It is necessary to identify *essential questions*. For example, it is not about learning a mass of facts about the Civil War. Instead, instruction should shed light on essential questions that require higher levels of thinking.

- Why do we have to fight wars?
- Some say our country remains wounded by the slavery experience and the Civil War. In what ways might this claim be true and in what ways untrue? What evidence can you supply to substantiate your case?

Essential questions determine the end learning goals. Think about how students might say them and make them conversational. Essential questions contain the benefit for learning. They answer the question, “Why do we have to learn this?”

Some teachers cannot identify countries on a map. However, if you asked them to consider the major problems faced by North Korea, they could research the question and come up with persuasive arguments in thirty minutes on the Internet. They have the ability to evaluate, synthesize and analyze information. This is the level to which we need to get our students. In our efforts to cover everything, we are, at times, teaching only superficially.

What is the process for identifying the power standards in the core academic areas? Around the standards, big ideas are identified. Teachers decide which standards can be clustered or incorporated into others. Next, skills that students need to be able to do are identified. This means looking at the verbs used in the grade-level indicators. Most important is deciding what is going to happen in the classroom by writing guiding questions and determining activities. The state has identified the content to be covered. The teacher decides how best to teach the material. This is the art of teaching. It is not a lock step process. It does not follow a textbook. It requires periodic evaluation of student mastery and student progress. The objective is to work smarter, not harder.

Analyze the standards and indicators to determine exactly what students need to do.

- Identify the essential focus or big ideas. Concepts—the important nouns
- Determine skills students need to be able to do. Skills—the verbs
- Decide on guiding questions and activities for the classroom.

Guiding questions spark curiosity and a sense of wonder to engage the student in the learning  
Context—selected learning activities

High school teachers Cassie Lundgard, Ashley Rykaceski, Erin McCreery, Lisa Shinko, Bill Albright, Bryan Wanosky, Anne Marie Eakins, Carrie Berkey, Don Caramell, Joanna Eaton, Dolly Faup, and Jill Ward spent February 27<sup>th</sup> determining the Power Standards for ninth and tenth grade courses. These teachers also attended the Leadership in an Era of Accountability workshop in January, along with John Brown.

Standard	Big Ideas	Skills	Guiding Questions
Physical Science Nature of Energy	Energy and waves	<u>Explain</u> the behavior of several types of energy. <u>Demonstrate</u> how weight affects gravitational potential energy. <u>Demonstrate</u> how thermal energy is transferred by conduction, convection, and radiation.	How is thermal energy related to cooking on the stove? If I am at Cedar Point, where would I find high potential energy? When I am using a campfire, why do embers fly in the air? What other processes are found in the campfire?

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