Curriculum Mapping

LASARD Effective Practices Workshop
October 11\textsuperscript{th} and 25\textsuperscript{th}, 2011
Lisa Altman, M. Ed.
Today’s Agenda…

- Provide an overview of curriculum mapping (CM)
- Explain the use of CM in curriculum and instruction as well as collaboration
- Explore examples of curriculum maps
- Practice the development of elements of a curriculum map through guided and independent practice
Elements of Student Programming

IEP Goals and Obj.

GLEs

Family and Student Priorities and Preferences
Remember!

IEP Goals and Obj.

GLEs

Curriculum Plans
We Asked a Teacher to Talk About the Challenges of Collaboration on Curriculum Across Grade-Levels
Curriculum mapping is a process for examining what you teach by creating a map listing:

(a) the content covered in class;
(b) the key skills taught;
(c) the assessment strategies used to document student learning

There are many formats that can be used to capture this information...let’s look at a few examples!
Benefits of Curriculum Mapping

- Improves understanding of individualized instructional needs
- Provides data on what is really being taught in schools.
- Aligns the written and taught curriculum
- Improves communication between general and special educators
- Enhances collaborative long-range and individualized planning
- Provides a repository of curricular materials which can be used over time.

Koppang, 2004
Enhance Collaboration

- Knowledge skills and assessments used
- Decisions about inclusive practices and needed supports
- Necessary modifications and accommodations
- Links to pre-teaching, community-based instruction and alternative assessments

Koppang, 2004
## Curriculum Map Example

**Grade/Course:** Fourth  
**Strand:** Number/Computation

<table>
<thead>
<tr>
<th>Essential Questions</th>
<th>Connections to Program of Studies and Core Content</th>
<th>Content</th>
<th>Suggested Activities</th>
<th>Resources</th>
</tr>
</thead>
</table>
| How big do numbers get? | **NC-4-1:** Read, write, and model whole numbers from 0 to 1,000,000, developing place value for hundred thousands and millions  
**MA-E-1.1.1** Whole numbers (0-1,000,000), fractions, mixed numbers, and decimals through thousandths.  
**MA-E-1.2.1** Read, write, and re-name whole numbers. | **Numbers, Integers and Place Value**  
-whole numbers 0 to 1,000,000 (read, write and model; order and compare; understand magnitude)  
-place value for hundred thousands and millions  
-factors and multiples of whole numbers | **Students will...**  
-Organize whole numbers, fractions, mixed numbers and decimals through thousandths on a number line using numbers cut out from the newspaper. (NC-4-1, MA-E-1.1.1)  
-Use four digits, such as the day's date, and rearrange the digits with choices of operations to represent the largest number possible. (NC-4-1, MA-E-1.2.1)  
-Enter a number into their calculator, and then change one or more digits in the display by adding or subtracting one or more numbers. They play "high number wins" to practice reading and writing numbers up to the millions. (NC-4-2, MA-E-1.2.9)  
-Fold uniform strips of paper into equal parts, labeling each part according to the fraction it represents. Strips will be folded to show halves, thirds, fourths, etc. Students will use their completed strips to show specific fractions and to name fractions. They will also use their strips to find and name equivalent fractions. (NC-4-2, MA-E-1.3.1)  
-Work with base ten pieces to build their understanding of tenths, hundredths, and thousandths to build their understanding of decimals. (NC-4-2, MA-E-1.3.1)  
-Use a calculator to convert fractions to decimals. (NC-4-2, MA-E-1.3.1)  
-Start with a number 500. Place 6 numbers on a cube | |
# Planning and Data Collection Matrix (Social Interaction Targets)

<table>
<thead>
<tr>
<th>Daily Schedule</th>
<th>Membership</th>
<th>Relationships</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal writing</td>
<td>Sign in and check daily message</td>
<td>Greet peers, respond to greetings</td>
<td>Relate personal information in writing (N)</td>
</tr>
<tr>
<td>Reading</td>
<td>Participate in small, teacher led reading group (D)</td>
<td>Ask questions during group discussions on text (F)</td>
<td>Improve reading fluency (P-weekly)</td>
</tr>
</tbody>
</table>

Progress Monitoring (data collection) Key: F= Frequency Recording. D= Duration Recording. N= Narrative. P= Probe (individual, weekly)

Adapted from Snell and Brown, 2006 p. 398
IEP matrices include a graph of IEP objectives identified with the course in which they will be targeted for instruction. In addition, they include the activities in which the student will participate.

<table>
<thead>
<tr>
<th>Daily Activities</th>
<th>Physical education</th>
<th>Hallway transition</th>
<th>7th grade Math (Angles and Circles Unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEP goals and Objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Demonstrate cooperative work skills (D, F)</td>
<td>X</td>
<td>X</td>
<td>X (during small group)</td>
</tr>
<tr>
<td>2. Use daily agenda (F)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Developing a Curriculum Map

Record the content for course or subject area

Identify Key Skills that will be used (be specific)

Assessment strategies (formal and informal)

IEP goals and objectives, individualized targets

Koppang, 2004
8th Grade Science Unit
Unit 8: Pollution and Its Effects
(Approximately 3 weeks)

Unit Description (Content)

- “This unit focuses on human activities that affect Earth’s systems and resources, such as point source and non-point source pollution. The importance of clean water and factors that would be considered methods of protecting water resources are also addressed in this unit.”

http://www.louisianaschools.net/topics/comprehensive_curriculum.html
“Students will be able to describe the effects of soil composition on plant growth. The students will understand that natural and human-induced pollution serves as a major threat to our water and air. Local issues provide motivation for an investigation of pollutants, and students will learn to focus on issues related to the quality of life, and the degradation of habitats.”

http://www.louisianaschools.net/topics/comprehensive_curriculum.html
<table>
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<tr>
<th>GLE #</th>
<th>GLE Text and Benchmarks</th>
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<tbody>
<tr>
<td>1.</td>
<td>Generate testable questions about objects, organisms, and events that can be answered through scientific investigation (SI-M-A1)</td>
</tr>
<tr>
<td>2.</td>
<td>Identify problems, factors, and questions that must be considered in a scientific investigation (SI-M-A1)</td>
</tr>
<tr>
<td>3.</td>
<td>Use a variety of sources to answer questions (SI-M-A1)</td>
</tr>
<tr>
<td>4.</td>
<td>Design, predict outcomes, and conduct experiments to answer guiding questions (SI-M-A2)</td>
</tr>
<tr>
<td>5.</td>
<td>Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment (SI-M-A2)</td>
</tr>
<tr>
<td>6.</td>
<td>Select and use appropriate equipment, technology, tools, and metric system units of measurement to make observations (SI-M-A3)</td>
</tr>
<tr>
<td>7.</td>
<td>Record observations using methods that complement investigations (e.g., journals, tables, charts) (SI-M-A3)</td>
</tr>
<tr>
<td>8.</td>
<td>Use consistency and precision in data collection, analysis, and reporting (SI-M-A3)</td>
</tr>
<tr>
<td>11.</td>
<td>Construct, use, and interpret appropriate graphical representations to collect, record, and report data (e.g., tables, charts, circle graphs, bar and line graphs, diagrams, scatter plots, symbols) (SI-M-A4)</td>
</tr>
<tr>
<td>12.</td>
<td>Use data and information gathered to develop an explanation of experimental results (SI-M-A4)</td>
</tr>
<tr>
<td>13.</td>
<td>Identify patterns in data to explain natural events (SI-M-A4)</td>
</tr>
<tr>
<td>14.</td>
<td>Develop models to illustrate or explain conclusions reached through investigation (SI-M-A5)</td>
</tr>
<tr>
<td>15.</td>
<td>Identify alternative explanations for hypotheses that were not supported</td>
</tr>
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</table>

LSU-HSC Human Development Center
Individual Needs

- 27 students in the class
- 3 students with mild disabilities
- 1 student with Autism (moderate-significant disabilities)
- 2 students who are English language learners
**Communication:** Use a 2 switch communication device to classify objects into 2 categories with 90% accuracy over 10 consecutive trials by January, 2012.

**Social Interaction:** Participate in a cooperative group activity by acting in an assigned role (e.g., time keeper), given peer supports, for one class session, by November, 2011.

**Behavior:** Display classroom expectations for voice volume using a visual support indicating the expectation at a given time, on 4/5 consecutive opportunities over 9 weeks.
Activity Sequence:

1. Complete *Word Grid* for “point” and “non-point” pollutants.

2. In small groups, examine the school and area outside the school for pollutants that students can hear, smell, and see or on land or in the air.

3. Record the findings on the Word Grid.

4. Work in groups to graph the number of each type of pollutant found and report results to the class.

*(SI GLEs: 3, 7, 11, 13, 19; SE GLE: 50)*

http://www.louisianaschools.net/topics/comprehensive_curriculum.html
Create a Curriculum Map

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<th>Complete Word Grid</th>
<th>Examine School Campus</th>
<th>Record Pollutants</th>
<th>Work in Small Groups to Graph Results</th>
<th>Share results with the class</th>
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Accommodations and Modifications can be added to this document through a key!
Modification and Accommodations

- PS - peer support
- MM - modified materials (e.g., “symbololated” map of school)
- AT - assistive technology
- TL - task list
- CC - color code materials
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Community-based IEP Skill Objective:

Using a shopping list, retrieve and purchase 5 items from a store for use in a unit lesson at school.

What are some activities that could be linked to “Campus Pollution Control” to address this individualized target?
Curriculum mapping:
- is a process to guide instructional teams on curriculum development, implementation, and individualization.
- can take many forms, but contain common components.
- can increase collaboration amongst instructional teams, including general and special educators.
- can facilitate access to the general education curriculum for students with disabilities.


Access Guide- Students with Significant Disabilities (LA DOE)

- [http://sda.doe.louisiana.gov/default.aspx](http://sda.doe.louisiana.gov/default.aspx)
- [http://accessguide.doe.louisiana.gov/default.aspx](http://accessguide.doe.louisiana.gov/default.aspx)

LA DOE Access Guide

LA DOE Comprehensive Curriculum:

- [http://www.louisianaschools.net/topics/comprehensive_curriculum.html](http://www.louisianaschools.net/topics/comprehensive_curriculum.html)

Kentucky DOE curriculum map examples: