Curriculum Mapping

What is it?

A Practical Explanation from Least Tern

Use mouse clicks to navigate through this presentation. Notes are provided for most slides.

- Curriculum mapping is a system that thematically aligns assessment, curriculum, and instruction.

  http://www.k-12.state.tn.us/tpd/currmap.htm

It is…

- a technique for exploring the primary elements of curriculum:
  - What is taught
  - How instruction occurs
  - When instruction is delivered.

RubiconAtlas.com

It is…

- a process for collecting data that identifies the core content, processes, and assessment used in curriculum for each subject area in order to improve communication and instruction in all areas of the curriculum.

http://artsedge.kennedy-center.org/professional_resources/howto/curriculum_map.html

What does it offer a school?

- A curriculum map is useful in:
  - helping teachers understand what is taught and when in all subject areas and all grades;
  - assisting teachers in creating unified interdisciplinary units that foster students' understanding of concepts, ideas, and activities across many subject areas;
  - assisting specials in scheduling performances and field trips without interfering with major testing blocks in the academic subjects and homerooms;
  - helping coordinate areas of study into larger interdisciplinary units (even if they are assessed separately by subject area);
  - acting as a successful venue for fostering conversation about curriculum and instruction among all faculty members;
  - assisting the students in finding "common threads" of understanding between a specific academic subject and other subjects;
  - assisting teachers in reflecting upon and adjusting their own lesson units during the school year.

http://artsedge.kennedy-center.org/professional_resources/howto/curriculum_map.html

A curriculum map will…

- help identify seams and gaps;
- identify repetition within scope and sequence;
- allow vertical alignment of assessments, content and methods across years or grade levels;
- support horizontal alignment of assessments, content and methods between subjects;
- improve both curriculum delivery and assessment over time.

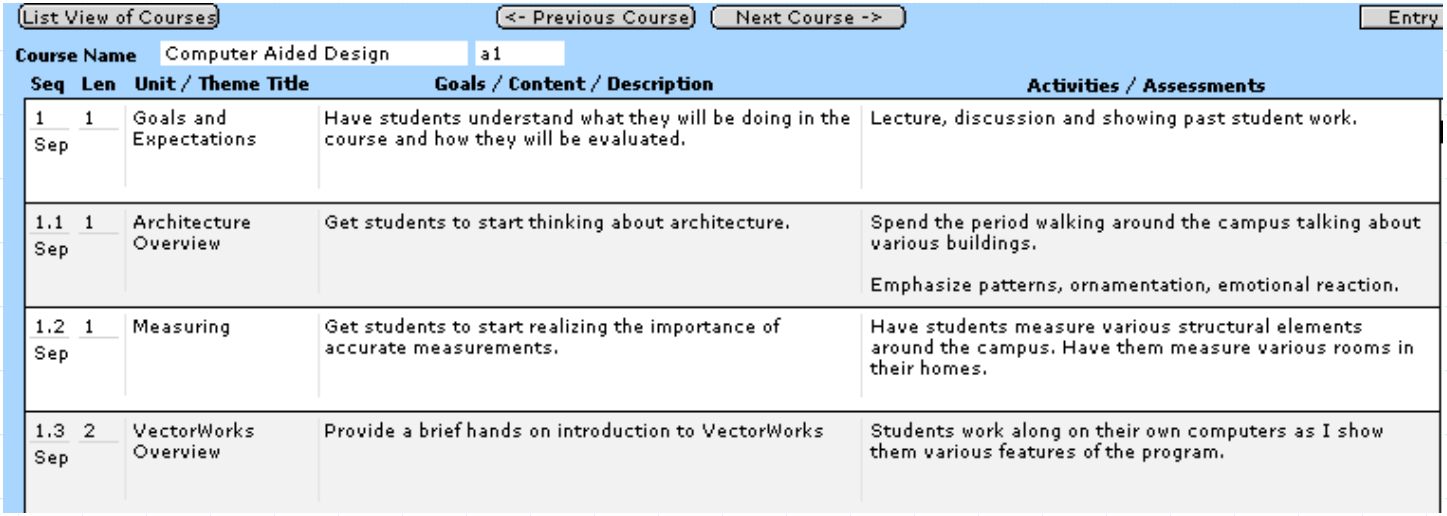
How does it work?

- Mapping Systems can be:
  - Web-based and made in-house with a tool like FileMaker Pro;
  - Server-based and made in-house with a tool like FileMaker Pro or with software specifically for mapping;
  - Web-based and hosted by a web-based company such as RubiconAtlas;
  - Web-based and hosted by a consulting company such as FreshPond (Cambridge, MA);
  - Portable in-house documents, posted in a shared folder or in a First Class discussion group;
  - Software-based and saved to local computers.

Contents:

- A Useful / Successful mapping system is:
  - adaptable to school-specific content and categories;
  - network or web-based (available to all faculty anywhere, anytime, collaborative);
  - platform independent (all computers can view and use);
  - easily updated by individuals; intuitive or familiar;
  - capable of displaying comparative data;
  - capable of storing and linking to media elements and websites that clarify or support content;
  - supportive of communication: links to faculty e-mail addresses/discussion groups;
  - secure to the level desired by the school (teacher, parent, student, administration, faculty);
  - relevant to a school's goals, mission and standards;
  - searchable by:
    - Specific subject, specific teacher, specific course
    - General subject area
    - Grade
    - Assessment strategy
    - Essential questions, Standards applied, relevance to goals and objectives
    - Day, Month, Year, trimester, semester, quarter, season
    - Teaching tools, methods (hardware, software, projects, products, hands-on, strategies)
    - Skills
    - General and specific lesson content

What are some models?



List View of Courses | <- Previous Course | Next Course -> | Entry

Course Name: Computer Aided Design | a1

Seq	Len	Unit / Theme Title	Goals / Content / Description	Activities / Assessments
1 Sep	1	Goals and Expectations	Have students understand what they will be doing in the course and how they will be evaluated.	Lecture, discussion and showing past student work.
1.1 Sep	1	Architecture Overview	Get students to start thinking about architecture.	Spend the period walking around the campus talking about various buildings. Emphasize patterns, ornamentation, emotional reaction.
1.2 Sep	1	Measuring	Get students to start realizing the importance of accurate measurements.	Have students measure various structural elements around the campus. Have them measure various rooms in their homes.
1.3 Sep	2	VectorWorks Overview	Provide a brief hands on introduction to VectorWorks	Students work along on their own computers as I show them various features of the program.

Rye Country Day School - FileMaker Pro “open source” database - contact Technology Director Fred Bartels: Fred_Bartels@rcds.rye.ny.us

May 2002

	Kindergarten	Class 1	Class 2
HR	preparation for our play "Under the Rainbow" study of plants study of insects		
Math	chip trading with chips and coins introduction to fractions numeral writing and counting	**Fractions** - halves, thirds, fourths of a whole and of a set **Measurement**- Hour and half hour; Pounds and ounces Feet and inches; Gallons, quarts, cups Review- number work	**Intr. Multiplication and Division**-, representation, notation, skip counting, inverses **Introduction to Fractions**- representation; notation;" numerator, denominator"; comparing **Quilt Unit cont**-connect with above concepts including $ notation
Language/ Reading	Writers' workshop pieces to publish invitation to News messages inside Mothers' Day cards	Author studies (Allen). Non-fiction study (Katz) Word work and dictations continue. Spelling list for home practice. Writing reading responses. Non-fiction writing study and publishing of non-fiction books.	
Social Studies	Memories and Memory boxes	Neighborhood study; Culminating project-building a model neighborhood in the classroom using cardboard boxes and art materials.	Westward Ho! Writing all in cursive
Science	May Day Celebration Simple Machines Objects in Motion Float Boats Panda Project	Earthquakes Volcanoes Fossils and Prehistoric Life Ice Age Lab	Planets and Conjunction Plants and Pollution Experiment Sails and Wings

The Chapin School Lower School Curriculum Chart - FileMaker Pro database - mounted as a multi-user document on the file server.

CURRICULUM MAP

MONTH: September **TEACHER:** Ezell **SUBJECT:** US History

- **MAJOR TOPIC #1**
  - Timeline of US History

PROF LEARNING OUTCOME:

- **American Heritage**

1. Analyze information about major historical developments* by:
   a. interpreting documents (i.e., Declaration of Independence, Northwest Ordinance, U.S. Constitution [including amendments]),
   b. identifying and comparing experiences and perspectives,
   c. assessing credibility of sources (e.g., primary and secondary sources, biased and objective accounts), and
   d. interpreting data (e.g., charts, graphs, narratives, illustrations, and photographs).
5. Identify and explain cause and effect relationships for major historical developments,* including:
   a. historical antecedents (e.g., related and unrelated events),
   b. multiple causation, and
   c. accidental, irrational, or unexpected circumstances.

FOCUS QUESTIONS:

- What are some of the major events in US History?
- When did these major events happen?
- Where can we research these major events?
- How do we know these research sources are creditable?

ASSESSMENT:

- US History Timeline Poster
- Matching US History Timeline test
- Peer group-work evaluation

Public School District in-house document: Word template

MAPPING FOR INSTRUCTION

Teacher:_____ School:_____
Subject: _____ Year: _____

Curriculum Objective	Essential Questions Critical Attributes	Time Frame	Instructional Strategies	Resources	Assessment Data / Instrument
REFLECTION					

Prince William County Schools - home-made template, server housed, web viewable

Curriculum Mapping - Map View

Project/Unit Calendar

Search All Layouts | Sort By Date Begun | Sort By Class | Sort By Subject

The initial view shows all Chapin units and projects. Use the **Find Specific** button to select your search criteria.

Fields can be modified here. Changes will appear in the Unit Planner. View in Unit Planner for a full description of each unit.

Subjects/Departments - you may search for up to 3 - tab between

Page Up

Course/Project	Content	Skills	Assessment	Resources: Books, Materials, Hardware, Software, People, Other
View in Unit Overview Date begun: TrimesterSemester Year Month				

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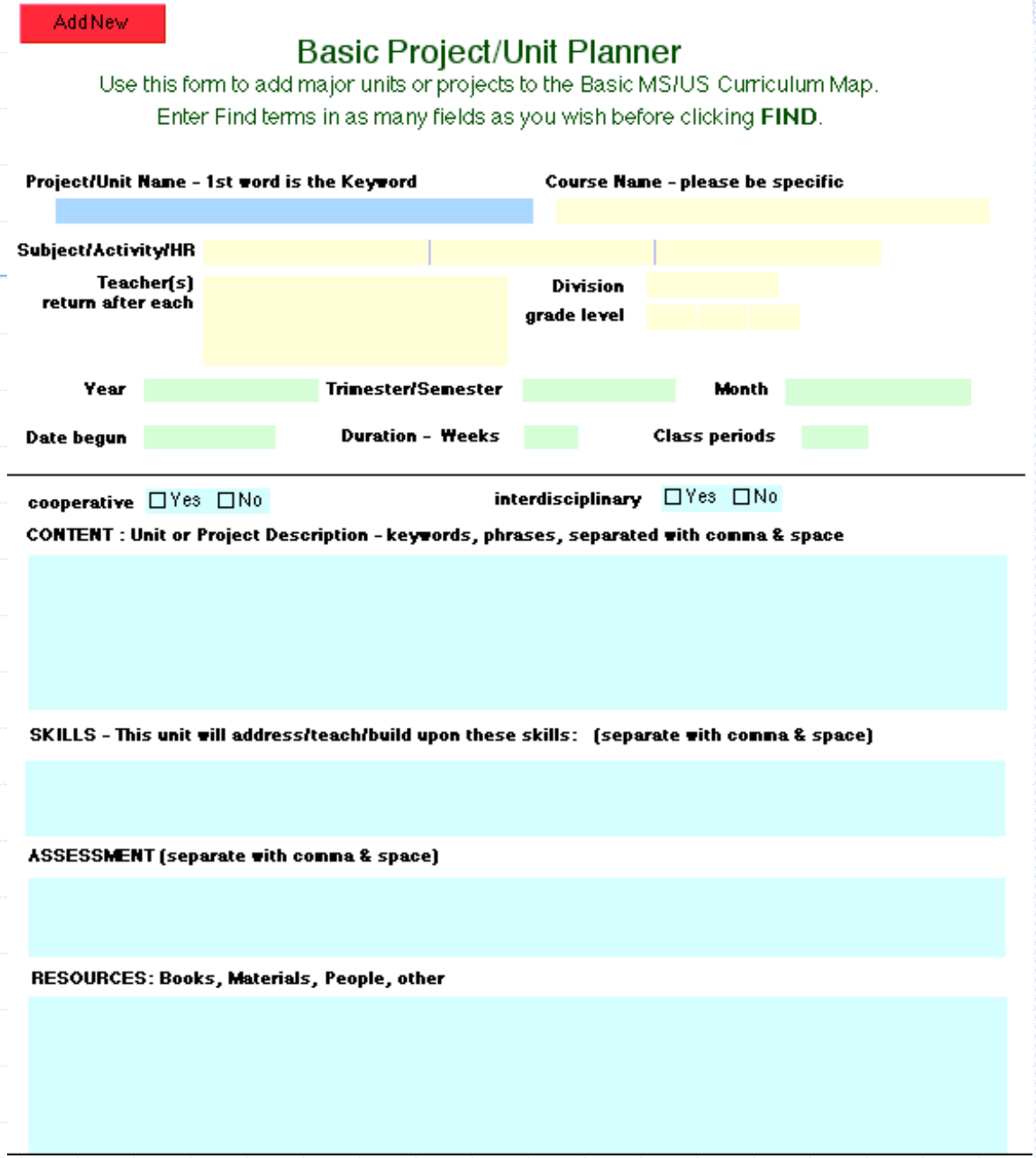
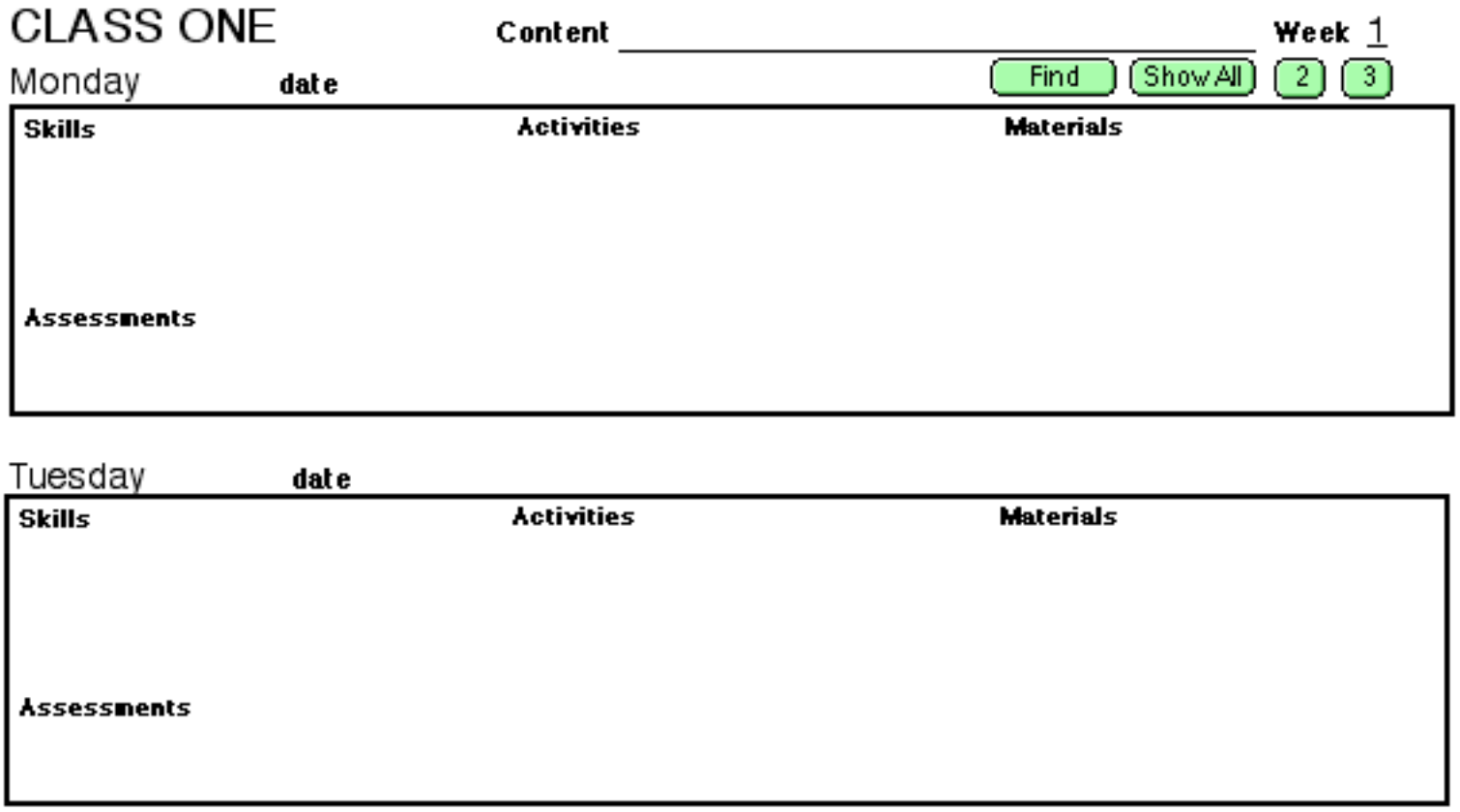
FileMaker Pro Basic Mapping database from Least Tern - should be server mounted - See another layout on the next slide



FileMaker Pro Basic Mapping database from Least Tern - teachers input into this layout. A layout with expanded fields (products, technologies, links to documents and web pages) is also available.



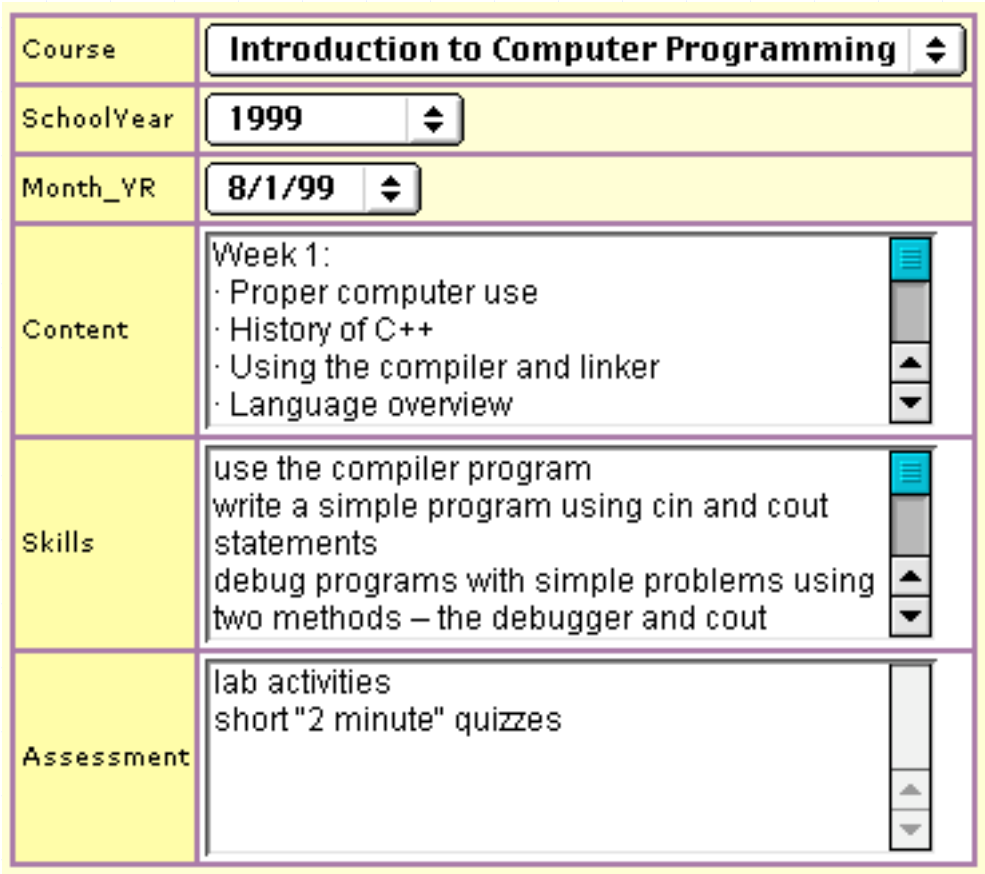
FileMaker Pro Basic Weekly Planner from Least Tern - placed on an individual teacher's computer or mounted as a multi-user file on a server (for a teaching team).

Yearly Curriculum

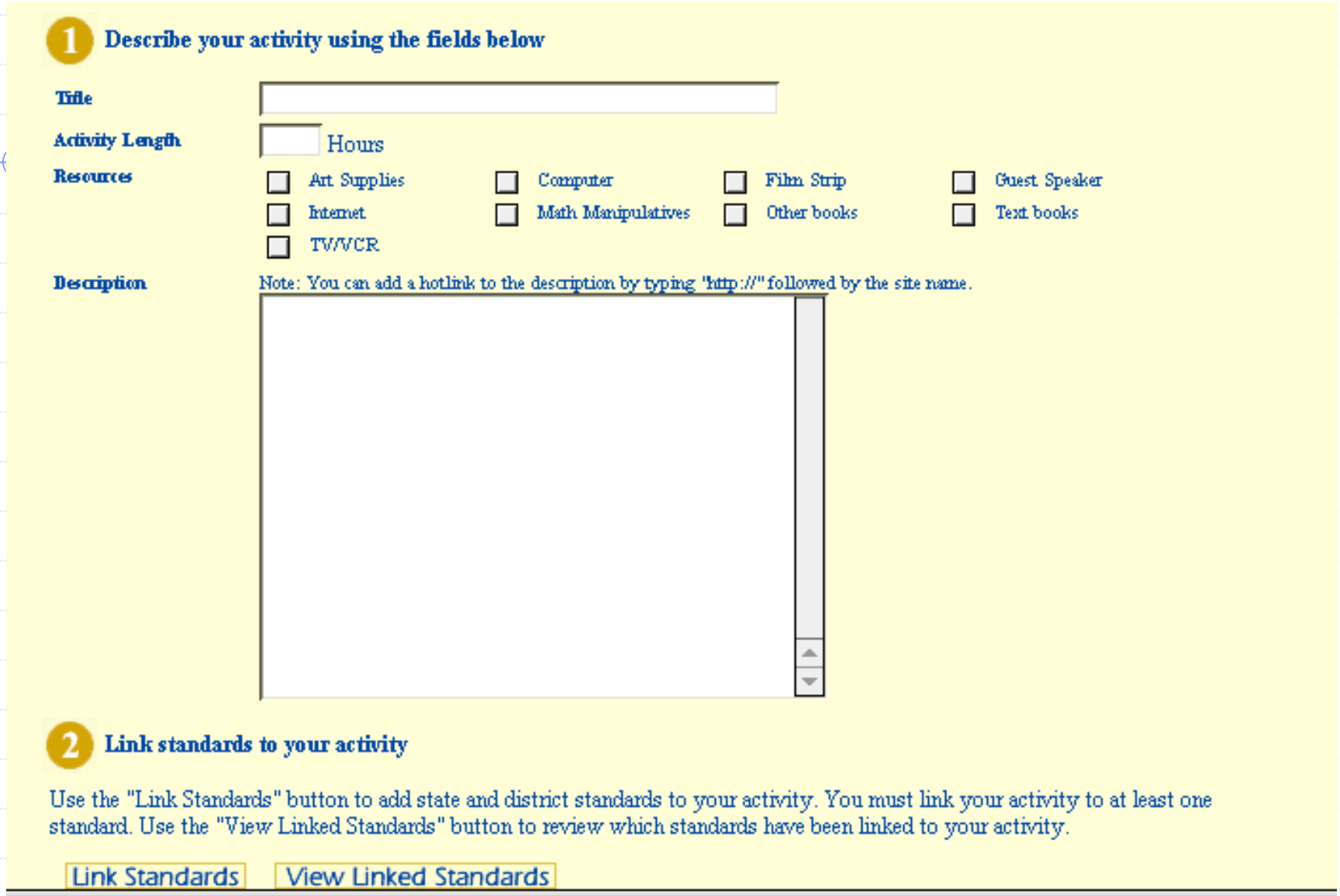
Mendenhall, Jason / Advanced Geometry / Grade 8 (Cedar Ridge Middle School)

Month	Objectives	Tests & Quizzes	Key Assignments	Lesson Plans
September	Recognize and describe qualities of points and lines in network and Euclidean Geometry Students will graph lines either by finding several coordinates or putting equation into y=mx + b Students will start to define words based on the undefined terms and recognize what makes a good definition including such words as space, figure, polygon. Students will come to understand what "between" means in geometry and this will help them determine various distances Students will write and analyze conditional statements and their converses for both their truth value and the various parts Students will determine the results of union and intersection of sets Students will maintain organized math notebooks and complete and correct daily work in a thorough and thoughtful manner according to the guidelines established in class.	2 quizzes 1 test	Daily assignments Group activities: write conditionals that fit a given criteria; determine how to categorize various shapes and numbers. Poem/collage of pre-concept of Geometry.	Link to lesson plan on district server at: http://myschooldistrict/mylessonplan.html

Rubicon Atlas - web-based, flexible and detailed commercial product



Curriculum Mapper - web-based software database



Curriculum Creator - web-based database

Does your school have a headstart?

- Curriculum manuals or guides;
- Cluster-based syllabus planning;
- Evaluation checklists;
- Weekly planning meetings;
- Activity archives;
- Learning objectives.

Obstacles

- It is a time - arduous task;
- Lack of clearly defined goals;
- Lack of agreement about the mapping form itself;
- Lack of a consistent vocabulary;
- Is it as valuable to users as it was to creators?

Positive outcomes

- Reduce meeting time focused on details - provide idea time and time for lesson sharing;
- Provide real information for the analysis of topics like assessment and skills;
- Assist new teachers with planning and understanding the curriculum;
- Reinforce the value of what you are doing;
- Provide a tool for communication with the larger community (parents, other schools, decision-makers, grant providers).

The Next Steps

- Form a Mapping Committee.
- Determine:
  - Do you want to undertake this? Why?
  - To what extent?
  - What are the goals?
  - What are the costs?
- Investigate mapping tools - select one.
- Determine:
  - Who will do this: The design, the decisions, the data entry.
  - What is a reasonable timeline?
  - What professional development is needed?

Consider

- Meeting with a curriculum planning consultant;
- Talking with schools and districts already involved in the process;
- Joining forces with another school also in the investigation process;
- Using your technology in a future-ready fashion;
- Taking advantage of training provided by the mapping tool's creator.

Resources

- Dr. Heidi Hayes Jacobs, Mapping The Big Picture (introductory chapters)
- Rubicon Atlas - web-based services and mapping overview
- TechPaths - web-based tool developed with Heidi Hayes Jacobs
- Curriculum Creator - web-based tool
- Curriculum Mapper - web-based tool
- Current listing from Least Tern

from

Least Tern

www.leasttern.com

July, 2003