

# Technology to Support Student Achievement

*What do we know about student learning and how can technology help?*

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In our two programs laptops are available when needed, 24 hours a day, 7 days a week. We found that many of our existing software programs made the application of Marzano's Nine Strategies for Improving Student Achievement a natural and smooth process. Rather than focusing on one strategy or another, we found the technology facilitated the use 2 or more of Marzano's Nine Strategies. Below each strategy we have listed the programs that best supported the strategy. We also have a website with a matrix of Marzano's Nine Strategies, software programs that support each strategy, student work samples and templates available for use. <http://www.sps.lane.edu/sms/Marzano.html>

## 1. Questions, Cues and Advanced Organizers

- a. Inspiration Software
- b. Word Processing
- c. Online Resources:
  - i. [http://manila.esu6.org/instructionalstrategies/stories/storyReader\\$12](http://manila.esu6.org/instructionalstrategies/stories/storyReader$12)
- d. Free online software
  - i. Intel Education "[Visual Ranking](#)"
  - ii. Intel Education "[Seeing Reason](#)"

## 2. Nonlinguistic Representations

- a. Graphic organizers- diagrams, etc
  - i. Inspiration & Kidspiration
  - ii. Word Processing with shapes
  - iii. Timelines: Timeline generator (online) [http://teachers.teach-nology.com/web\\_tools/materials/timelines/](http://teachers.teach-nology.com/web_tools/materials/timelines/)
- b. Math Software:
  - i. Cabri Geometry 3D & Cabri II
  - ii. Explorlearning.com
- c. Images
  - i. iPhoto (OS X Apple)
  - ii. Free online educational images: <http://www.pics4learning.com>
  - iii. American Memory Project
- d. Movies
  - i. Math choreography: <http://www.netc.org/focus/examples/choreo.php>
  - ii. Tsunami example: <http://www.netc.org/focus/examples/tsunam.php>
- e. Comic strips
  - i. ComicLife software
- f. Podcasts
  - i. Garageband (Apple)
  - ii. Audacity (open source PC software)
- g. Clay animation models & movies
  - i. Geology example from 3<sup>rd</sup> grade classroom: <http://www.geolit.org/Claymation/>

## 3. Homework and Practice

- a. Typing practice
- b. Vocabulary practice
  - i. Amanda's Mnemonics page: <http://users.frii.com/geomanda/mnemonics.html>
  - ii. Inspiration
- c. Word processing
- d. Online sites with feedback (for students with Internet)

- e. Web Quests

#### 4. Reinforce Effort and Provide Recognition

- a. Web pages with recognition
  - i. School example: <http://www.netc.org/focus/examples/exhibi.php>
  - ii. Recognizing effort site resource: <http://www.allkindsofminds.org/activity.aspx?id=12>
  - iii.
- b. Teacher 'positive review' comments on student work- Word Processing 'comments'
- c. Media played or available on server as sample of student work
- d. Newsletters with recognition of student work
- e. Awards & celebrations of student work
- f. Charts of progress
  - i. Word processing chart option for tracking progress
  - ii. Spread sheet for tracking progress
  - iii. Online software for tracking progress
    - 1. KidBiz3000
    - 2. Vantage
    - 3. Reading Counts
    - 4. Read Naturally
    - 5. Read 180
- g. Rubrics- word processing, Inspiration, online rubrics, forms, spreadsheets, etc

#### 4. Identify Similarities and Differences

- a. Inspiration
- b. Word processing & spread sheet programs
- c. Fee-based online programs:
  - 1. Kidbiz3000
  - 2. Vantage
- d. Free online sites
  - i. Thinking By Analogy web site: <http://www.the-private-eye.com/>
  - ii. <http://www.csun.edu/~vceed002/ref/analogy/analogy.htm>

#### 5. Summarize and Note taking

Word processing:

- i. Use "track changes" option to track how the meaning of the text changes as they delete, add or modify text.
- ii. "Notebook" function in Microsoft Word OSX 2004"
- iii. Note-taker software
- b. Wiki software for collaborative notetaking
- c. "Stickers" (OS X Apple software)- color code virtual post-it notes. These can be exported to a word processing program.
- d. Presentation software
  - i. Keynote (Apple): <http://www.apple.com/iwork/keynote/>
  - ii. Open Source Presentation software
  - iii. PowerPoint: <http://www.microsoft.com/education/lessonplans.msp>
- e. Inspiration software for note taking

#### 6. Cooperative Learning

- a. Web Quests & PBL
- b. Movies
- c. Podcasts
- d. Project-based learning with multimedia: <http://pblmm.k12.ca.us/index.html>

#### 7. Setting Objectives and Providing Feedback

- a. Smartboards- gathering student input

- b. Clickers
- c. Blogs for feedback: <http://www.netc.org/focus/examples/bloggi.php>
- d. Webpage forms
- e. Dropbox on server
- f. Voting via a website
- g. Server for communicating & giving feedback on work
- h. Rubrics online & as a form
  - i. Word processing form
  - ii. Adobe Acrobat forms:
  - iii. Rubistar rubric creator: <http://rubistar.4teachers.org/index.php>
- i. Word processing using comments, voice, and feedback options
- j. Online quizzes –fee based sites
- k. Online surveys
- l. Online software that allows for feedback
  - i. Intel Education [“Showing Evidence”](#) *Allows for teacher ongoing feedback*
  - ii. Intel Education [“Visual Ranking”](#) *Allows for teacher ongoing feedback*
  - iii. Intel Education [“Seeing Reason”](#) *Allows for teacher ongoing feedback*
  - iv. *KidBiz3000* ([Achieve3000](#))- *Allows for teacher ongoing feedback*

## 8. Generating and Testing Hypothesis

- a. Webquests
- b. Interactive online software
- c. Collaborative workspaces
  - i. Wikis
  - ii. Blogs
- d. Word processing
- e. Spread sheets
- f. Science experiments with data shared through server
- g. Intel Education [“Showing Evidence”](#)
- h. Probes, Proscopes and science equipment attached to laptops
- i. Classroom example of generating and testing hypothesis in the history classroom:  
<http://www.netc.org/focus/examples/firsth.php>

### Online Resources

#### ASCD Study Guide

[http://www.ascd.org/portal/site/ascd/template.MAXIMIZE/menuitem.8f136d86e0aa2b9cdeb3ffdb62108a0c/?javax.portlet.tpst=b1f0221ee928b4c5bb8852f862108a0c\\_ws\\_MX&javax.portlet.prp\\_b1f0221ee928b4c5bb8852f862108a0c\\_viewID=sg\\_view&javax.portlet.prp\\_b1f0221ee928b4c5bb8852f862108a0c\\_bookmoid=7433a2948ecaff00VgnVCM1000003d01a8c0RCRD&javax.portlet.begCacheTok=token&javax.portlet.endCacheTok=token](http://www.ascd.org/portal/site/ascd/template.MAXIMIZE/menuitem.8f136d86e0aa2b9cdeb3ffdb62108a0c/?javax.portlet.tpst=b1f0221ee928b4c5bb8852f862108a0c_ws_MX&javax.portlet.prp_b1f0221ee928b4c5bb8852f862108a0c_viewID=sg_view&javax.portlet.prp_b1f0221ee928b4c5bb8852f862108a0c_bookmoid=7433a2948ecaff00VgnVCM1000003d01a8c0RCRD&javax.portlet.begCacheTok=token&javax.portlet.endCacheTok=token)

### Focus on Effectiveness

<http://www.netc.org/focus/>