**Resources Related to Secondary Level Common Core State Standards**

**for Mathematics**

*South Carolina’s adoption of the Common Core State Standards for Mathematics provides an opportunity to tap expert knowledge from a variety of resources. However, it is important to be informed consumers regardless of the resource used. The following resources are considered to be aligned to and supportive of the Common Core State Standards for Mathematics and should be used as deemed appropriate to meet individual needs. The resources listed are grouped by*

* *State Professional Mathematics Organizations*
* *Gap Analysis, Progression and Unpacking Documents*
* *Curriculum Resources and Sample Tasks*
* *Teacher Content Knowledge Resources*
* *Math Tools*
* *Instructional Materials*
* *Assessment*

*Other than membership in the SC professional mathematics organizations, all other resources listed below are free. Please see the important note at the end of the resource list regarding URLs.*

**STATE PROFESSIONAL MATHEMATICS ORGANIZATIONS**

**Membership in South Carolina’s Professional Mathematics Organizations**

* South Carolina Leaders of Mathematics Education – (SCLME) Web site in development; Membership Chairman Jaci Bearden jbearden@barnwell45.k12.sc.us ($15.00)
* South Carolina Council of Teachers of Mathematics – (SCCTM) Membership - <http://www.scctm.org/> ($10.00)

**GAP ANALYSIS, PROGRESSION and UPACKING DOCUMENTS**

**Algebra I Gap Analysis Document**  - <http://scde.mrooms.org/index.php?page=32409>

**Geometry Gap Analysis Document in progress by members by SCLME** – <http://scde.mrooms.org/index.php?page=32409>

**Progression Documents** <http://math.arizona.edu/~ime/progressions/>

Draft High School Progression on Statistics and Probability Conceptual Theme (when at that site scroll to the bottom of the page to access document)

Developed at the University of Arizona, Institute for Mathematics and Education by a working team including Dr. William McCallum, lead writer of the Common Core State Standards for Mathematics. According to the site:

 “The Common Core State Standards in mathematics were built on progressions: narrative documents describing the progression of a topic across a number of grade levels, informed both by research on children's cognitive development and by the logical structure of mathematics. These documents were spliced together and then sliced into grade level standards. From that point on the work focused on refining and revising the grade level standards. The early drafts of the progressions documents no longer correspond to the current state of the standards. . . .

 This project is organizing the writing of final versions of the progressions documents for the K–12 Common Core State Standards. The work will be undertaken by members of the original work team of the progressions and also by mathematicians and educators not involved in the initial writing.”

**North Carolina Link**

<http://www.ncpublicschools.org/acre/standards/common-core-tools/#unmath>

 On this site the state of NC has “unpacked” the CCSSM. Some grade levels/math subjects are better than others but it is worth exploration.

**CURRICULUM RESOURCES – SAMPLE TASKS**

**Inside Mathematics**

<http://insidemathematics.org/index.php/home>

The “Home” link is listed above. The following is a specific link to excellent sample tasks related to specific Common Core standards. However, it is recommended that the entire “Tools for Educators” tab at the Home site be explored to see sample video lessons that exemplify the mathematical practices, problem of the month, etc.

<http://insidemathematics.org/index.php/mathematical-content-standards>

“According to the site at this link you can: “Explore materials and tasks you can use immediately with your students. Inside Mathematics has aligned our tasks and assessment resources with the Common Core State Standards for Mathematical Content. Note that you can make use of these standards through searching by grade level as well as by progression, so we have provided two routes through these tasks and other resources.”

**Illustrative Mathematics**

<http://www.illustrativemathematics.org/>

 This site contains excellent sample tasks. However, the tasks are aligned to the conceptual themes rather than the specific course standards as set forth in the traditional pathway. When using this site it is a good idea to click on “Show only illustrated standards” which leads directly to only the standards that have illustrations.

**Drop In Units Designed by South Carolina Educators**

<http://effectiveness.ed.sc.gov/content-knowledge/scripts/stemstandards.cfm>

IMPORTANT NOTE: Drop In Units are designed for use after Algebra I End of Course Testing and after PASS as a beginning way to prepare students for transition to the Common Core State Standards. Units on Statistics, Sequences and Series and 8th Grade Probability at this site are based on the Common Core State Standards for Mathematics and were developed by South Carolina educators. Professional Development using some of the lessons from the units is available through StreamlineSC. For links to those archived webcast sessions see the “Archived Webcasts. . .” section under “Teacher Content Knowledge Resources” below.

**TEACHER CONTENT KNOWLEDGE RESOURCES**

**Learn Zillion**

 <http://learnzillion.com/>

 These are excellent videos tied directly to CCSSM that are approximately 5 minutes in length. They also include a Guided Practice section for students.

If you view in smaller than full screen don’t “close” the feedback box that appears below the video because your screen will go black and you’ll need to “go back” and restart.

For teacher – start with “Coaches Commentary”, move to the “Video Lesson” and then view the “Guided Practice”. There is a section on “Lesson Slides” but I’ve had trouble opening.

**SEDL**

<http://www.sedl.org/pubs/catalog/items/ms104.html>

When at this site click on the “Common Core box” and then either sign up for updates or click on the “Go to Free Resource” tab. When at the video location it appears there are no 9-12 videos. However, double clicking on the 9-12 tab near the bottom of the screen reveals videos aligned to the secondary standards. According to that site:

“The Common Core State Standards (CCSS) videos are designed to support states, schools, and teachers in the implementation of the CCSS. Each video is an audiovisual resource that focuses on one or more specific standards through examples and illustrations geared to enhancing understanding. The intent of each content-focused video is to clarify the meaning of the individual standard rather than to be a guide on how to teach each standard, although the examples can be adapted for instructional use.”

**Kahn Academy**

<http://www.kahnacademy.org/>

 While this site is process focused, it does give quick simple demonstrations as to how to perform mathematical procedures. The site also has a practice section. The work on this site is organized by mathematical concepts rather than specific CCSSM standards.

**Archived Webcasts of South Carolina Educators Providing Content Knowledge Training**

Statistics

To see the entire unit from which lessons used during this professional development were taken see “Drop In Units” under “Curriculum Resources” above. Professional development on statistics content knowledge for teachers was provided during Summer 2012, recorded and archived at [*http://scde.mrooms.org/index.php?page=27424*](http://scde.mrooms.org/index.php?page=27424)See “Archived Events” on the left side of page, then click on May, 2012 and Summer, 2012. The archived video is housed on StreamlineSC. If you don’t have a free Streamline account this web site has a link with instructions on how to set up a free account.

Sequences and Series

To see the entire unit from which lessons used during this professional development were taken see “Drop In Units” under “Curriculum Resources” above. Professional development on sequences and series content knowledge for teachers was provided during November 2012, recorded and archived at[*http://scde.mrooms.org/index.php?page=27424*](http://scde.mrooms.org/index.php?page=27424) See notes immediately above about StreamlineSC.

8th Grade Probability

To see the entire unit from which lessons used during this professional development were taken see “Drop In Units” under “Curriculum Resources” above. Professional development on 8th grade probability content knowledge for teachers was provided during spring 2012, recorded and archived at [*http://scde.mrooms.org/index.php?page=27424*](http://scde.mrooms.org/index.php?page=27424)See notes under “Statistics” above about StreamlineSC.

**MATH TOOLS**

NCTM Math Tools

<http://www.nctm.org/resources/content.aspx?id=32702>

“Core Math Tools is a downloadable suite of interactive software tools for algebra and functions, geometry and trigonometry, and statistics and probability. The tools are appropriate for use with any high school mathematics curriculum and compatible with the Common Core State Standards for Mathematics in terms of content and mathematical practices. Java required.

Core Math Tools can be saved on a computer or USB drive, making it possible to use without Internet access.  Files can be saved and reloaded by students and teachers. Its portability allows easy access for students, teachers and parents outside the classroom. Core Math Tools will automatically check for updates when launched and Internet access is available.”

**INSTRUCTIONAL MATERIALS**

**K-8 Publishers Criteria for the Common Core State Standards for Mathematics**

<http://www.corestandards.org/assets/Math_Publishers_Criteria_K-8_Summer%202012_FINAL.pdf>

 The document at this site is an excellent tool for judging instructional materials as they relate to and support implementation of the Common Core State Standards for Mathematics. While this tool and the one below are endorsed by the CCSSO, the two documents differ somewhat. It is recommended that both be reviewed and adapted to meet individual school needs.

**NCSM -- CCSS Curriculum Analysis Tool and Professional Development Materials**

<http://www.mathedleadership.org/ccss/materials.html>

 According to the web site “Lead by Bill Bush, University of Louisville, and initiated at the request of Council of Chief State School Officers (CCSSO), this project is developing tools for assessing the potential of curriculum materials to support students’ attainment of the CCSS, including the Standards for Mathematical Practice.” While this tool and the one above are endorsed by the CCSSO, the two documents differ somewhat. It is recommended that both be reviewed and adapted to meet individual school needs.

**ASSESSMENT**

**MARS – Mathematics Assessment Resource Service**

<http://www.mygroupgenius.org/mathematics/instructional-tools/>

This site is funded by the Bill and Melinda Gates Foundation and contains a huge variety of formative assessment lessons. Do a site search to find information related to particular standards.

**Utah Link**

<http://schools.utah.gov/CURR/mathsec/Core.aspx>

Be careful with this link because it uses an integrated approach and SC uses a traditional pathway. In addition, portions of the actual CCSSM standards are not addressed. However, there are good potential formative and summative questions

**Smarter Balanced Assessment Consortium**

<http://www.smarterbalanced.org/>

 There are two assessment consortia that are developing standardized testing related to CCSSM – Smarter Balanced and PARCC. South Carolina is working with the Smarter Balanced Consortium.

 This site gives a great deal of information from explanations about Depth of Knowledge to Item Specifications. There are short videos that explain the types of questions that will be used on the standardized test. Because the locations of those various components may be moved, it is recommended that the Home site be explored by sections of personal interest/need. (NOTE: A good place to start is to double click on “Smarter Balanced Assessments” on the bar near the top of the page. Do not use that tab as a drop down box, but double click for additional resources and then scroll down to the mathematics section.)

 In addition, the state of Oregon has organized sample Smarter Balanced items by standard and thus in an easier to find format. The link for that site is <http://www.ode.state.or.us/search/page/?id=3747>

There is a 25 minutes You Tube Video on Item Types – benefits, etc.

<http://www.youtube.com/watch?v=COTpymxy_S0>

While watching the video, to see the sections that explain the specific assessment item types fast forward based on the following video times:

* Selected Response Type 1:57 – 5:34
* Constructed Response 5:35 – 6:36 (Not very useful)
* Technology Enabled and Technology Enhanced Type 13:49 – 16:54
* Comparing Technology Enabled versus Technology Enhanced Types 20:34 – 21:44
* Extended Response and Performance Tasks Videos will be available shortly – according to the Smarter Balanced Web Site.

**NOTE: All URLs listed above are active and accurate as of 5:00 PM September 14, 2012. Because information contained at a URL may change or the link be misdirected, always double check a URL immediately prior to opening with an audience.**

**To report broken or inaccurate links, for questions, or to share additional information/resources that should be considered for inclusion on this list of resources, contact Mary Ruzga at** **mruzga@ed.sc.gov**