

Module 5
Participant Guide

Focus on Sustaining Change

Section 4

Connecticut Core Standards for Mathematics



Grades 6–12

Systems of Professional Learning

Connecticut Core Standards Systems of Professional Learning

The material in this guide was developed by Public Consulting Group in collaboration with staff from the Connecticut State Department of Education and the RESC Alliance. The development team would like to specifically thank Ellen Cohn, Charlene Tate Nichols, and Jennifer Webb from the Connecticut State Department of Education; Leslie Abbatiello from ACES; and Robb Geier, Elizabeth O’Toole, and Cheryl Liebling from Public Consulting Group.

The Systems of Professional Learning project includes a series of professional learning experiences for Connecticut Core Standards District Coaches in English Language Arts, Mathematics, Humanities, Science, Technology, Engineering, Mathematics (STEM), and Student/Educator Support Staff (SESS).

Participants will have continued support for the implementation of the new standards through virtual networking opportunities and online resources to support the training of educators throughout the state of Connecticut.

Instrumental in the design and development of the Systems of Professional Learning materials from PCG were: Sharon DeCarlo, Debra Berlin, Jennifer McGregor, Judy Buck, Michelle Wade, Nora Kelley, Diane Stump, and Melissa Pierce.

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Section 4

Section 4: Supporting Professional Growth

Strategies for Ongoing Professional Support

Instructions: Review the strategies on the following pages and then use the information to answer the reflection questions about how this could be implemented in your school. Be sure to address any needed modifications.

Note to Group: As you review each of the following strategies for providing ongoing professional support, think about the different needs that can be met through each strategy and how you can promote these strategies back at your school. Many of these strategies focus on a whole school approach to sharing with and learning from each other. This can be tricky because many schools do not take this whole school focus resulting in individual teachers being nervous about asking for help or sharing what they are doing with the whole school. However, if the environment is created under the central message that we are all learning and everyone has something important to offer, the sum of the knowledge presented and gained is much stronger than what happens on an individual level. This is very similar to the classroom environment that is needed for students to persevere with solving challenging mathematics tasks. Students need to feel that they are supported, that they can share thinking that may need modification, ask questions when they do not know, and feel free to learn from mistakes. This is the same kind of environment that is needed for teachers to continue learning with their peers. Keep this in mind as you review and determine how each of the strategies presented can be modified to meet the needs of all teachers.

Additional notes from the discussion on Strategies for Ongoing Professional Support

PROVIDING RESOURCES	
What is this?	Teachers will need ongoing support through receiving resources such as lesson plans, instructional strategies, problems/tasks, CCS-Math implementation updates, ideas for implementing the Standards for Mathematical Practices, etc.
Example of needs that can be addressed	
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	

FOCUS OF THE MONTH	
What is this?	Based on a needs assessment or survey of teachers, select an area each month and make it the CCS-Math focus for new resources, professional discussions, etc. Every month then becomes an in-depth look at a content, practice, or instructional area where all teachers share something, practice something, or generate solutions for, and so forth. The focus can be discussed, examined, and shared either face-to-face or virtually.
Example of needs that can be addressed	
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	

TEACHER PRESENTATIONS	
What is this?	To continue with the belief that all teachers have something to share, each grade level, pair of teachers, etc., can be given time during the year, perhaps one group/pair during a whole faculty meeting, to share ideas, strategies, lessons, and so forth with the all of the teachers in the school. Teachers would present and then open the floor for feedback, ideas, possible solutions, etc.
Example of needs that can be addressed	
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	

WHOLE SCHOOL HELP WANTED BOARD	
What is this?	<p>In between faculty, grade-level, or professional learning community meetings, teachers should be provided with a way to solicit help, answers, and/or ideas around a central problem or situation that is occurring in their classroom instruction. This is one of those areas that needs a safe environment for participation. One way to accomplish this is to ask teachers to submit questions anonymously and have one person post these to a secure site, such as on Edmodo (which you will learn about later), and allow all teachers to discuss and provide assistance. Or, these questions can be offered up at faculty meetings for group discussions.</p>
Example of needs that can be addressed	
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	

Opportunities for Collaboration

Instructions: Review the strategies below and then use the information to answer the reflection questions about how this could be implemented in your school. Be sure to address any needed modifications.

Note to group: As you consider and discuss each of the opportunities for collaboration below, think about how each of these can creatively be set up to support the implementation of the CCS-Math at your school. Things to keep in mind when creating opportunities for teachers to collaborate:

- Set Norms – Make sure that all teachers share an understanding of the purpose of the collaboration, how the work will happen, how responsibilities will be assigned, how everyone is accountable to the whole group, and so forth.
- Identify the Focus – In order to make the most out of each opportunity for collaboration, be sure that there is a specific focus with an attainable outcome identified. This allows everyone to stay on track and the important work to get done.
- Identify a Leader – The coach does not always need to be the assigned leader. Each group can have a revolving leader, giving each person a share of the responsibility.
- Preparation – Each person should bring something to share to each group meeting, either face-to-face or virtual. This is similar to allowing students' individual think time before a group works on a problem. Here, every teacher in a group does some personal work before the meeting so that everyone brings something to add to the overall discussion.

Additional points to keep in mind discussed during small group work:

Opportunity	What teachers will do	Discussion Notes	Reflect on how this tool can be used in your school. Be sure to address any needed modifications.
Co-Plan Lessons	Teachers can plan lessons together either face to face or virtually. They can think through the content, practices, and how to modify the lesson in order to meet the needs of all students.		
Student Work Review	Teachers can review student work to examine how different students solved problems, how their thinking has evolved, representations that they have used, etc.		
Sharing Solution Strategies	Similar to student work review, here teachers can share how they anticipate students solving a particular task, why they might solve it that way, and how they would present the work to the whole class.		

Opportunity	What teachers will do	Discussion Notes	Reflect on how this tool can be used in your school. Be sure to address any needed modifications.
Sharing Problems	Teachers can share rich problems that they have found so that one teacher is not responsible for finding all problems.		
Content Discussions	Teachers can engage in rich discussions about the content they are responsible for teaching, They can watch tutorials together, review the Progressions Documents and the Standards, and so forth in order to deepen their own content knowledge.		
Instructional Practice Review	Teachers can find and/or model instructional practices that they have either used in the past or consider using in the future in order to share and receive feedback.		

Opportunity	What teachers will do	Discussion Notes	Reflect on how this tool can be used in your school. Be sure to address any needed modifications.
Peer Feedback	Teachers can provide respectable peer feedback on lesson plans and/or lesson implementations.		
Co-Research	When a topic comes up that needs further investigation, a group of teachers can research the topic and then come together to share their ideas and/or findings.		

Additional Notes:

Tools for Collaboration and Communication

Instructions: Review the tools below and then use the information to answer the reflection questions about how this could be implemented in your school. Be sure to address any needed modifications.

Note to group: As you access and discuss each of the tools below, think about how each of these can creatively be used to support the implementation of the CCS-Math at your school. Most of these were originally designed to be used by a teacher with his or her students. This is a good thing because of the level of security that is involved. With that being said, each can also be used by a group of teachers, or a coach and a group of teachers, etc. As you review, keep in mind the teacher needs that you have identified. How can these tools be used to provide support for those needs to be met? For example, resources for videos, lesson/unit plans, Progressions Documents, suggestions for instructional strategies, etc., can be organized on a Symbaloo board. Or, a grade level may choose to set up an environment on 81dash or Edmodo in order to discuss a lesson that has been co-planned using Google Docs and to provide video or student work for discussion based on that lesson. Or, a coach could create a blog on Kidblog that is accessible only by a specific group of teachers on which the coach would blog about ideas, resources, lesson implementations, requests for ideas, and so forth. The possibilities are there, you just have to think about how to make them work for your situation and your teachers.

Tool	81dash
Location	http://81dash.com/about.php
Tool Summary	81dash allows groups to set up a secure chat environment and provides a dashboard for sharing files, taking notes, and keeping track of important tasks.
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	

Tool	Symbaloo
Location	http://www.symbalooedu.com/
Tool Summary	Symbaloo allows for the organization and sharing of resources in one place so that they can be easily used by those who have been given permission to access the board.
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	

Tool	Edmodo
Location	https://www.edmodo.com/
Tool Summary	Allows a group to connect in a secure, social media environment in order to ask questions, discuss ideas, share resources, review videos, etc.
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	

Tool	Google Apps for Education
Location	http://www.google.com/enterprise/apps/education/
Tool Summary	Provides secure tools such as Google Drive, Google Docs, Google Workspace that teachers can use to collaborate on designing learning, solve problems, review and comment on student work, and so forth.
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	

Tool	Kidblog
Location	http://kidblog.org/home/
Tool Summary	Kidblog is an online, secure blogging site where each person, normally a teacher and students but in this case can be a coach and teachers, can each provide commentary on a particular topic, post videos or student work for discussion, review work, videos, resources, or lessons, and so forth in a secure location accessible to only those provided access by the teacher/coach.
Discussion Notes	
Reflect on how this tool can be used in your school. Be sure to address any needed modifications.	