

Module 5
Facilitator Guide

Focus on Sustaining Change

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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Module Overview

Prerequisite	None
Duration	Full day
Outcomes	<p>By the end of the session, participants will have:</p> <ul style="list-style-type: none"> • Strengthened working relationships with peer Core Standards Coaches across their region • Deepened their understanding of the CCS-Math through sharing of implementation experiences • Aligned types of teacher support to identified teacher needs • Explored strategies for promoting reflection • Examined strategies for providing feedback on lesson plans and instruction • Identified strategies and resources for supporting and sustaining change • Identified opportunities for ongoing teacher professional support and teacher collaboration

Resources Required

- Chart paper, markers, pens, highlighters, nametags, post-it notes
- Participant Guide for each participant
- EQuIP Rubric for each participant
- CT Core Standards “Look Fors” Guide for each participant – these are collected at the end of the session

Session Preparation

Tables should be arranged so participants can work in groups.

Key Messages

- Teachers’ ongoing needs for implementing the CCS-Math need to be broken down into smaller segments in order to determine if it is a need for resources, information, training, etc., in order for the most effective support to be provided.
- Teachers need opportunities to collaborate on the development and implementation of CCS-Math lessons.
- Ongoing professional support will need to be provided in such a way as to meet the needs of individual teachers and schools.
- There are core instructional strategies that can be used as the foundation of coaching conversations.
- Reflective practice is a key element to making and sustaining changes in instructional practice.

Session at-a-Glance

Introductory Activity (20 minutes)

The facilitator will review project goals and activities, module outcomes, and the agenda for the session. Participants will complete a short self-assessment, which can be found in the Participant Guide on page 4. They will rate themselves on a scale of 1-4, depending on their knowledge or feelings about implementing the CCS-Math. Participants will complete the same assessment at the end of the session. **Allow 3–4 minutes to complete.**

Participants will then take part in an activity where they create a “Consensogram” chart for each of the six questions on the Pre-Assessment. After the Consensogram charts are completed, participants are asked to comment about what they see.

Supporting Documents:

- Session Agenda
- Pre-Assessment

Materials:

- Chart paper, markers, sticky notes

PowerPoint Slides:

- 1–7

Section 1: Identifying and Understanding Teacher Needs (80 minutes)

Training Objectives:

- To reflect on the change process.
- To identify teacher needs around the key ideas from Modules 1–4.
- To understand what is required for meeting the identified teacher needs.

Section 1 begins with the facilitator summarizing the key ideas from Modules 1–4 and then having participants describe their vision of the teaching and learning taking place in a mathematics classroom that incorporates all of these key ideas. After volunteers share, the facilitator will explain that Module 5 is about bringing all of those key ideas together and making a plan for helping all teachers grow in their implementation of the CCS-Math. Participants are then asked to try to determine where they think teachers in their school are with making the overall change of teaching and learning with the CCS-Math. Participants will work in small groups to determine what teachers need based on the answers they have provided.

Supporting Documents:

- Summary Statements
- Stages of Change
- Implementation Plan Template

Materials:

- Chart paper, markers, sticky notes

PowerPoint Slides:

- 8-24

Section 2: Modes of Support (60 minutes)

Training Objectives:

- To discuss, share, and determine coaching strategies to be used to meet teacher needs.

The facilitator will begin by discussing the fact that some needs can be met by providing information, some by having a conversation, but others may need a more formal approach such as modeling, or working side-by-side with the teacher. The facilitator will refer participants to descriptions of various examples of modes of support in their Participant Guide. Throughout the examination of support types, it will be stressed that the role of the Core Standards Coach is to provide support, not to evaluate teachers. The facilitator will ask each table group to discuss an assigned mode of support and create a poster. A representative from each table group will share the main ideas from their poster with the large group.

Supporting Documents:

- Modes of Support
- Notes on Modes of Support

Materials:

- Chart paper, markers, sticky notes

PowerPoint Slides:

- 26–30

Section 3: Supporting Meaning Reflection (100 minutes)

Training Objectives:

- To examine the role of a coach.

- To understand the role of questioning and feedback, fostering meaningful reflection on the part of the teacher.
- To practice providing feedback on lesson plans and classroom observations.

The facilitator will engage participants in thinking about the role of a CCS-Math Core Standards coach. Using slides that clarify what the coach does and does not do, the facilitator will remind participants that most often a coach's role is non-evaluative. In "coaching conversations", teachers are provided with feedback on lesson planning or classroom visits that should promote meaningful reflection on the part of the teacher. The coach will often help the teacher by either raising questions or making suggestions for refinement of the lesson. Participants will be paired in order to engage in coaching conversations about the lessons designed in Module 4. A person from one table group will take on the role of a coach and take about 10 minutes to look over the planned lesson designed by a "teacher" from a different table group and form purposeful questions for the teacher (using the EQuIP Rubric or the UDL Principles as a basis for these questions). The two participants will then flip roles and the process will be repeated for the other participant's completed lesson design template. Participants will debrief this activity during a large group discussion. Explain that they will now turn their attention to providing prompts for reflection on observed classroom practices. Sample "lenses" that could be used for data gathering by the coach are listed on page 21 in their Participant Guide. Table groups will decide on a lens to use when observing a video lesson. After viewing the lesson, groups will discuss reflection prompts, based on the observation lens that they would use during a follow-up coaching conversation. A "jigsaw" approach will be used to allow participants to share their discussion prompts with other tables.

Supporting Documents:

- Notes on Coach's Role recording sheet
- Purposeful Questions recording sheet
- Forming Questions on a Lesson Design recording sheet
- EQuIP Rubric
- UDL Principles
- Reflecting on the Coaching Conversation recording sheet
- Lenses for Data Gathering
- Data Gathering Tool
- Classroom Observation Feedback recording sheet

Video

Teaching Channel video – Probability of Dependent and Independent Events

<https://www.teachingchannel.org/videos/teaching-dependent-and-independent-events>

Materials:

- Chart paper, markers

PowerPoint Slides:

- 32–45

Section 4: Supporting Professional Growth (65 minutes)**Training Objectives:**

- To identify and examine tools and strategies that can be used to provide teachers opportunities for continued professional growth.

Section 4 focuses on helping participants plan for supporting and sustaining change within their school. This section begins with the participants discussing, in small groups, strategies that they currently employ to provide teachers with ongoing professional support, the opportunities teachers have to collaborate and the topics/tasks at the center of those activities, and the resources that they use to increase communication and collaboration with and among their teachers.

Within their small group, participants will break up into three smaller, micro groups. Each micro group will focus on one of three topics: ongoing professional support, opportunities for collaboration, and tools for collaboration and communication. Micro groups will then meet with others for the topic that they have chosen to explore and discuss provided resources, topics, and so forth. Participants will add any information, resources, etc., that they wish to use to help with addressing areas of need identified in Section 1 and to move their school's CCS-Math implementation forward.

Supporting Documents:

- Resources for Collaboration and Communication
- Strategies for Ongoing Professional Support
- Ways to Work Together

Materials:

- Chart paper, markers, sticky notes

PowerPoint Slides:

- 47–51

Section 5: Sustaining Change (30 minutes)**Training Objectives:**

- To receive feedback on coaching plans.
- To wrap up Modules 1–5.

Participants will complete a gallery walk in which they will visit four different spots around the room. At each spot, they will discuss with others each of the four areas covered by Modules 1–4:

- Understanding the Standards
- Content Knowledge
- Instructional Practices
- Designing CCS-Math Learning

For each topic, participants will discuss any remaining questions/needs, and provide suggestions or strategies for meeting the needs, etc. Then, they will add either a question, need, or strategy to the chart paper for the corresponding topic. After everyone has addressed all four topics, participants will come together as a large group to discuss their needs and strategies for each. The facilitator will wrap up this section by providing additional resources for building coaching skills and answer any remaining questions.

Supporting Documents:

- *Additional Ideas for Support*

Materials:

- Chart paper, markers, sticky notes

PowerPoint Slides:

- 52–54

Systems of Professional Learning Project Updates and Reminders (5 minutes)

Introduce participants to other initiatives going on around the state.

PowerPoint Slides:

- 55–59

Closing Activities (5 minutes)

Participants take the Post-Assessment and online Session Evaluation.

Supporting Documents:

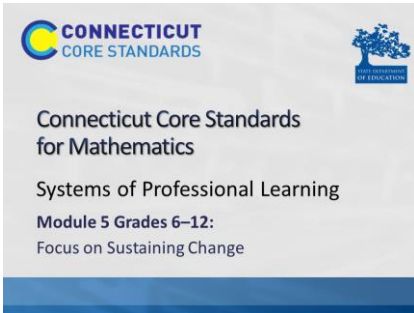
- Post-Assessment
- Session Evaluation (online)

PowerPoint Slides:

- 60–64

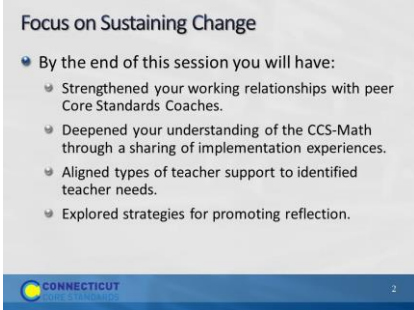
Session Implementation

Module 5 – Introductory Activity



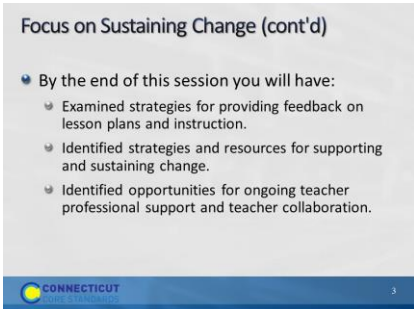
Slide 1

(Slides 1–7, including the Pre-Assessment, will take about 10 minutes total.)



Slide 2

Review the outcomes for the day, sharing what you hope to accomplish throughout the full day session. There are seven outcomes for this session. These are presented to the participants over two slides.



Slide 3

Blank.

Today's Agenda

Morning Session

- Welcome and Introductions
- Identifying and Understanding Teacher Needs
- Modes of Support

Afternoon Session

- Supporting Meaningful Reflection
- Supporting Professional Growth
- Sustaining Change

Post-Assessment, Session Evaluation, & Wrap Up

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CORE STANDARDS

Slide 4

Review the agenda letting participants know that this is the pathway they will travel in order to accomplish the seven outcomes discussed earlier. Note that in addition to the break for lunch, there will also be short breaks throughout the day, but participants should feel free to take a personal break as needed. Emphasize the importance of coming back from lunch and breaks on time to ensure enough time to complete all the work of the day.

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CORE STANDARDS

**Introductory Activity:
Pre-Assessment – CCS-Math**

- Please complete the Pre-Assessment

Page 4

CONNECTICUT
CORE STANDARDS

Slide 5

Participants will complete a short self-assessment, which can be found in the Participant Guide on page 4. They will rate themselves on a scale of 1-4, depending on their knowledge or feelings about implementing the CCS-Math. Participants will complete the same assessment at the end of the session. **Allow 3–4 minutes to complete.**

**Introductory Activity:
Pre-Assessment – CCS-Math**

- On a scale of 1–4, choose the rating on the Pre-Assessment that best represents your knowledge or feelings about implementing the CCS-Math.
- For each of the statements on the assessment, put the statement number and your rating on a sticky note (one statement/rating per sticky note).

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CORE STANDARDS

Slide 6

Facilitator: Hang up 6 pieces of chart paper around the room. Label the top of each chart paper with Statement 1, or Statement 2, etc. Then add the number scale 4, 3, 2, 1 at the bottom (see example on next slide). Direct participants to place their ratings for Statements 1-6 on six individual sticky notes (they should also write the

Statement number on each sticky). Choose one participant to collect all of the sticky notes for Statement 1 and another participant to collect sticky notes for Statement 2 and so forth until all of the sticky notes are collected. Now the collector can create a Consensogram for their Statement using the stickies. Sticky notes should be placed one above the other to create a bar graph.

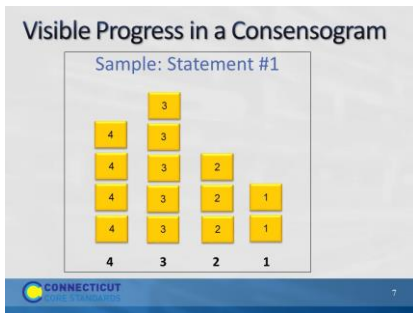
Introductory Activity: 20 minutes total

Materials:

Pre-Assessment on Page 4 of Participant Guide

Sticky notes

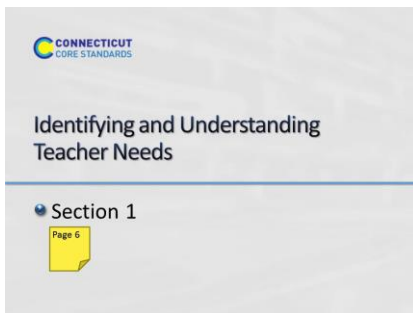
Chart Paper



Slide 7

A Consensogram chart should be created for each of the six statements. After the Consensogram charts are completed, either comment upon what you see, or invite participants to do so.

Section 1



Slide 8

Section 1: Identifying and Understanding Teacher Needs

Section 1 Time: 80 minutes

Section 1 Training Objectives:

- To reflect on the change process.
- To identify teacher needs around the key ideas from Modules 1–4.
- To understand what is required for meeting the identified teacher needs.

Section 1 Outline:

- (15 minutes) Section 1 begins with the facilitator summarizing the key ideas from Modules 1–4 and then having participants describe their vision of the teaching and learning taking place in a mathematics classroom that incorporates all of these key ideas.
- (5 minutes) After volunteers share, the facilitator will explain that Module 5 is about bringing all of those key ideas together and making a plan for helping all teachers grow in their implementation of the CCS-Math.
- (5 minutes) Participants are then asked to review the change process discussed in Module 1 and try to determine where they think teachers in their school are with making the overall change of teaching and learning with the CCS-Math.
- (20 minutes) Each of the following features of Modules 1–4 will then be addressed to determine where teachers are in the change process and what, specifically, teachers need in order to move to the next level. Features to be addressed include:
 - Understanding the Standards
 - Structure of the Standards
 - Importance of the Practice Standards
 - Content Knowledge
 - Instructional Practices
 - Designing CCS-Math Learning

To address each of the above and to make the determinations of where teachers are and what they need, participants will use the information collected on the questions generated at the end of Module 4 to describe where the teachers at their school are in terms of their knowledge and/or implementation of a specific feature and be asked to answer questions to assist in guiding their thinking. Participants enter their answers into the appropriate space on the Implementation Plan template. **Note: This template will continue to be revisited through the module as new information and strategies are discussed.**

- (20 minutes) After participants have answered all of the questions, they will work in small groups to determine what teachers need based on the answers they have provided. For example, if teachers do not understand the idea and importance of unit or chapter planning, what needs to happen? A possible answer may include something like: Teachers need to understand how the Standards were written and developed so as to not be broken into those ‘grain size’ pieces, but to develop the bigger mathematical understanding. There is space within the template for participants to consider how this need will be met, however, it is not expected that they will answer this question in Section 1, as Sections 2–4 are designed to provide additional strategies and suggestions that would be helpful.
- (15 minutes) Section 1 wraps up with volunteers sharing some of the needs that they have identified and with the facilitator explaining that in Sections 2–4 participants will focus on strategies that can be implemented to help coaches meet a majority of their teachers’ needs.

Section 1 Supporting Documents*Summary Statements*

Stages of Change

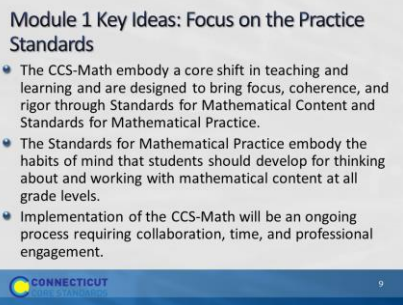
Implementation Plan Template

Section 1 Materials

Chart paper

Markers

Sticky Notes



Slide 9

Module 1 Key Ideas

Begin this section by explaining to participants that one of the main goals of this module is to bring all of the information presented in Modules 1-4 together into one cohesive, realistic plan for providing teachers support as they move forward in their CCS-Math implementation. To get started, focus everyone’s attention on the key ideas/messages from Module 1 and explain each further using the following notes:

- Bullet 1: Remind participants that in Module 1 they looked at the three shifts of focus, coherence, and rigor and they looked at how each of the shifts manifest themselves in the CCS-Math.
- Bullet 2: After looking at the three shifts, the remainder of the day focused on understanding the Standards for Mathematical Practice during which time they created ‘I Can’ statements for each of the practices and examined Practice 1, Make sense of problems and persevere in solving them, and Practice 2, Attend to precision, in more depth.
- Bullet 3: Module 1 wrapped up with participants beginning to examine strategies for making changes to instructional practice through discourse, collaboration, and use of multiple representations and how coaches could bring those strategies back to the teachers at their school.

Before moving to the next slide, ask participants to take a moment to reflect on Module 1 and to write, in their Participant Guide, a summary statement about Module 1 that depicts what they want to see in their own classroom and in their school when everyone is effectively addressing the Standards for Mathematical Practice. If participants have difficulty with this, provide the example of ‘Teachers are providing students with opportunities to solve challenging mathematics tasks and students are able to persevere in solving those tasks through thinking critically and flexibly about the mathematics they are being taught.’ After participants have completed their summary statement, move on to the summary of Module 2.

Module 2 Key Ideas: Focus on the Content Standards

- The Standards for Mathematical Content are not just a new list of topics.
- Together, the Standards for Mathematical Practice and the Standards for Mathematical Content bring new rigor to the mathematics we teach and expect students to learn.
- For many, teaching the CCS-Math will require a shift in instructional practice.



Slide 10

Module 2 Key Ideas

Focus participants' attention on the key ideas/messages from Module 2. Remind participants that in Module 2 they:

- Bullet 1: Began to look at the progression of the mathematics across and within each grade level as they examined the shift of coherence in more detail.
- Bullet 2: Looked at how rigorous mathematics tasks can bring together the Content and Practice Standards into meaningful, rich learning experiences for all students.
- Bullet 3: Examined strategies (Open Questions, Parallel Tasks) for providing multiple entry points into the mathematics so that all students benefit from the focus and rigor of the CCS-Math.

Pause now and allow participants to create their summary statement for Module 2. Then, move on to the summary for Module 3 on the next slide.

Module 3 Key Ideas: Focus on Teaching and Learning

- Universal Design for Learning is one way to provide support for the learning expectations of the CCS-Math for all students.
- Assessments can be designed as an assessment OF learning or an assessment FOR learning.
- The formative assessment process allows teachers to continually monitor progress towards learning targets.
- Teaching, learning, and assessment are connected and the combination of the three are needed for meeting the expectations set forth in the CCS-Math.



Slide 11

Module 3 Key Ideas

Focus participants on the four key ideas/messages for Module 3 on the slide and provide the following additional details. Remind participants that in Module 3 they:

- Bullet 1: Examined Universal Design for Learning and the three UDL principles as another resource/option for strategies for providing multiple entry points and meeting the needs of all students.
- Bullet 2: Discussed assessment **for** learning and assessment **of** learning and the information that can be gained through each assessment type.
- Bullet 3: Focused on a process for addressing the important elements of formative assessment and how formative assessment can provide valuable information on, and a way to measure, students' progress towards meeting learning targets.

- **Bullet 4:** Finally, Module 3 wrapped up with a discussion on helping teachers to understand how teaching, learning, and assessment are connected and the combination of the three are needed for meeting the expectations set forth in the CCS-Math.

Have participants quickly write their summary statement for Module 3 and then move directly on to the Module 4 summary on the next slide.

Module 4 Key Ideas: Focus on Designing Learning

- The structure of the CCS-Math is purposeful and meaningful to the overall learning design.
- Learning targets help students reach specific milestones along the overall learning progression.
- Teachers must have in place a way to gather information on what their students know and are already able to do in order to effectively design a learning experience with appropriate entry points into the lesson.
- Planning CCS-Math lessons takes time and is worthy of careful thought and preparation.

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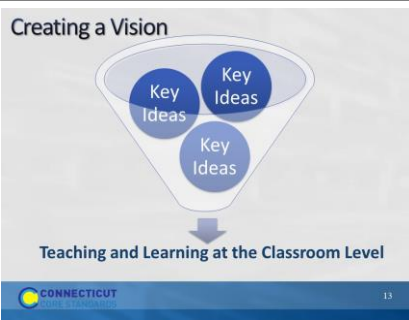
Slide 12

Module 4 Key Ideas

Finally, ask participants to focus on the key ideas/messages from Module 4. Remind participants that in Module 4 they:

- **Bullet 1:** Examined, in depth, the structure of the CCS-Math and focused on the point that there is coherence among the domains, cluster headings, and individual standard statements. This coherence is central to determining how the mathematics is presented to students, because even though learning is presented at the lesson level, the unit level understandings are the main overarching goal. Each individual lesson should be thought of as a means to reach the unit level goal. The ‘unit level’ goal is important because the mathematics of the CCS-Math is developed on a learning progression.
- **Bullet 2:** Put the ideas from Bullet 1 into practice when they created their own learning targets.
- **Bullet 3:** Knowing that the mathematics develops along a learning progression, it is extremely important for teachers to be able to determine where their students are with prior learning in order to design their learning so that it starts at an appropriate entry point.
- **Bullet 4:** Examined questions to ask themselves as they began to plan lessons around specific learning targets, all the while keeping in mind the unit level goals.

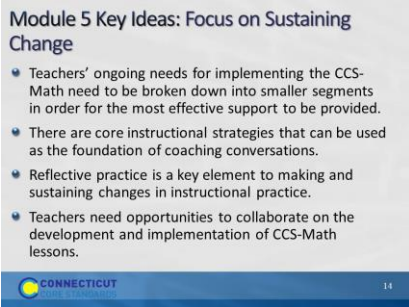
Ask participants to complete their summary statement for Module 4 and then move on to the next slide where they will bring all of this information together into one coherent vision for mathematics in their own classroom and in their school.



Slide 13

Creating a Vision

Ask participants to now look at all four of the summary statements that they just created and, in the space provided in the Participant Guide, describe their overall vision for teaching and learning at the classroom level when the CCS-Math are effectively being implemented. Additional questions that can be asked to guide their thinking include: What are teachers doing? What are students doing? What does the mathematics work look like, sound like, and ignite thinking around? As participants think about these questions, prompt them to think about each question in the context of understanding the standards, content knowledge, instructional practice, and designing CCS-Math learning as these are the contextual areas that they will begin to work with throughout this section. After participants have described their vision in writing, ask for volunteers to share their vision either with the whole group or with others at their table. If there is time, briefly discuss commonalities of everyone’s vision before moving on to the focus of Module 5.

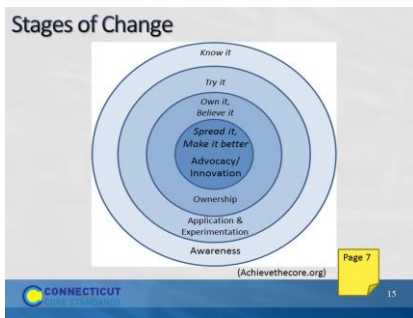


Slide 14

Module 5 Key Ideas

Now focus participants’ attention on the key ideas/messages for Module 5. As participants review each bullet, explain that core to these is the idea that everyone in the school will need ongoing support as their implementation of the CCS-Math evolves and what we want to accomplish in this module is to provide resources, strategies, and ideas for providing that support in ways that address not only teachers’ needs but, also within the constraints of their own classroom and coaching duties. Because all participants are at different places with their coaching position duties (i.e. some are still classroom teachers, some are out of the classroom, etc.), as the module proceeds throughout the day they will be presented with strategies of varying complexity that require more or less time than another. This variety is in place so that each participant can take ideas and resources away that meet their current coaching constraints, but are also leaving with ideas that they can modify to fit their current duties and share with others or use when and if their duties change. Now,

with that understanding, move on to reexamining the Stages of Change that was initially introduced in Module 1.



Slide 15

Stages of Change

Remind participants that in Module 1 they reviewed the Stages of Change and thought about where the teachers at their school were during the beginning stages of their CCS-Math implementation. Now, review each stage again and then ask participants to reflect, in the space provided in the Participant Guide, on where they think the teachers in their school are now with their CCS-Math implementation. Have them think about everything that they have seen at their school and everything that they have learned during Modules 1-4, and their vision of teaching and learning at the classroom level that they just described.

Review the stages as follows:

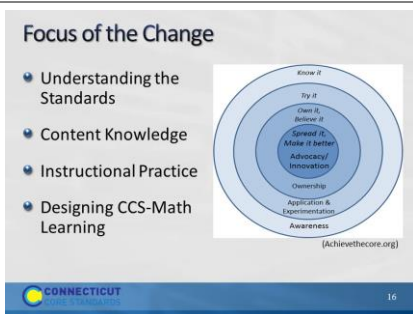
Stage 1 is Awareness – simply knowing what is being asked and what it means

Stage 2 is Application and Experimentation – ‘Getting your toes wet’, trying out new strategies and perspectives

Stage 3 is Ownership – That’s the moment you get buy-in; you believe in the change and take it on personally

Stage 4 is Advocacy and Innovation – This is the point where you are proficient and can help others and make improvements in the work itself.

After participants have made their overall determination of where the teachers at their school are with their CCS-Math implementation, explain that they will now build off of this as they drill down into specific areas of a CCS-Math implementation.



Slide 16

Focus of the Change

For this next part, participants will need to access the answers to the questions that they sought out in their school after Module 4. Ask participants to get these out and then explain that they are going to reflect on where the teachers at their school are in terms of understanding the standards, their content knowledge, their instructional practice, and designing CCS-Math learning. Also explain that they will use the implementation plan found in the Participant Guide to record their thoughts. There are several parts to the implementation plan and they will complete each part as directed. For now, they will focus only on the column that answers the question ‘Where are teachers now?’ for each element that will be discussed. When everyone is ready, move on to the next slide to discuss the first element: Understanding the Standards.

Understanding the Standards

- Do teachers understand the structure of the Standards?
 - Have teachers looked at the Standards and made connections between and across grade levels?
 - Do teachers understand the importance of the Practice Standards?
 - Have teachers created ‘I can’ statements for their grade level around the Practice Standards that they can use with their students?
- Have teachers been introduced to the Progressions Documents?

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Slide 17

Understanding the Standards

Remind participants that all teachers must have a clear understanding of the structure of the Standards and that this understanding must go deeper than simply knowing how to read the Standards. To determine where teachers are now with their understanding of the Standards have participants use the questions on the slide as a guide to make that determination, and then, later, they can also use those questions to determine what teachers need. As participants get ready to reflect on the teachers at their school, explain that the questions on the slide are also in their Participant Guide, and should be thought of in terms of a starting point, not a comprehensive list of questions that they should ask themselves. The questions that they use during their reflection may need to be different, based on where their teachers are and where their whole school is with their CCS-Math implementation. One question that may come up from participants during this work is ‘what if I don’t know where teachers are?’ and this is fine. Explain to participants that if they do not know, make a note of this as it is something that they will want to explore further back at their school. Allow approximately 5 minutes for participants to reflect on Understanding the Standards, and then move on to Content Knowledge. If someone does not finish within the 5 minutes, let them know that they can revisit this throughout the day.

Note: Remind participants that they are only addressing where they are now, not all parts of the graphic organizer. The remaining sections will be completed throughout the remainder of the module.

Content Knowledge



- Do teachers understand the depth and progression of the content that they are required to teach?
- Do teachers understand the habits of mind described by the Standards for Mathematical Practice?

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Slide 18

Content Knowledge

Have participants reflect on where the teachers in their school are with the knowledge of the mathematics content and the Practice Standards of the CCS-Math. Allow 5 minutes for this reflection and then move on to Instructional Practice.

Instructional Practice



- Do teachers understand and are they able to teach using effective questioning strategies?
- Do teachers understand the importance of rigor and productive struggle and how to structure and provide learning opportunities at appropriate levels?
- Do teachers support students use of multiple approaches and multiple representations?

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Slide 19

Instructional Practice

Have participants reflect on where the teachers in their school are with the instructional practices needed to implement the CCS-Math using the questions here and on the following slide as a guide.

Instructional Practice



- Do teachers understand and are they able to provide multiple entry points into the mathematics, thus making the learning accessible to all students?
- Do teachers understand how the nature of instructional tasks affects all of these points?
- Do teachers understand how, when, and why to have students work collaboratively and to promote rich mathematical discourse?

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Slide 20

Instructional Practices

Allow 5 minutes for this reflection and then move on to Designing CCS-Math Learning.

Designing CCS-Math Learning



- Do teachers understand the idea and importance of unit or chapter planning?
- Do teachers know how to create learning targets that are related and progress towards a larger big idea?
- Do teachers pre-assess students' prior knowledge before planning lessons?

Page 11

21

Slide 21

Designing CCS-Math Learning

Have participants reflect on where the teachers in their school are with designing CCS-Math learning using the questions here and on the following slide as a guide.

Designing CCS-Math Learning



- Do teachers understand and do they implement a formative assessment process within their lessons?
- Do teachers' lessons address the instructional shifts required by the Standards?
- Do teachers incorporate the classroom practices necessary to help students develop the depth of understanding required by the Standards?

22

Slide 22

Designing CCS-Math Learning

Allow 5 minutes for this reflection and then move on to the next part of this section during which participants will work together to begin identifying teachers' needs.

Working Together

- Work together to determine what teachers need based on where they are now.
- For example:
 - If teachers do not understand the idea and importance of unit or chapter planning, what needs to happen?
 - Teachers need to understand how the Standards were written and developed so as to not be broken into those 'grain size' pieces but to develop the bigger mathematical understanding.



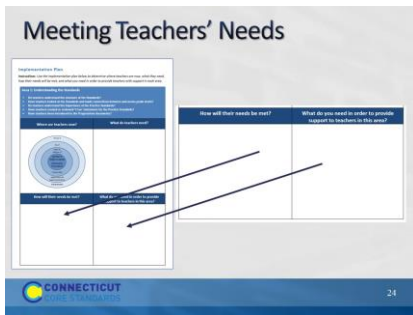
23

Slide 23

Working Together

First ask participants if there are any questions about the reflections that they just completed. Then, explain that now that they each have a better idea of where the teachers in their school are with each of the four areas of their CCS-Math implementation, they will now work together to think through the more specific needs that teachers have that will need to be addressed, in order to move them to the next stage of change. Review the

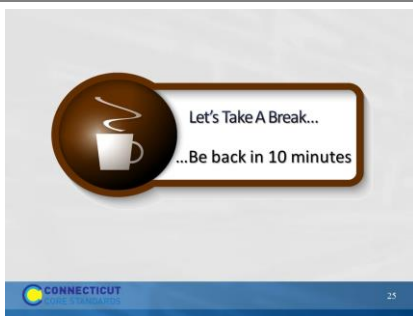
example on the slide and instruct participants to enter the specific needs of the teachers in their school in the space that answers the question ‘What do teachers need?’ Further explain that they should stop at that point and not worry yet about trying to answer the remaining two questions in the implementation plan as more information on that will come throughout the day. Allow participants to work for 20 minutes and, as they work, be sure to visit each group to answer and provide support for their specific questions. When time has been reached, bring the whole group back together and ask for volunteers to share some of the needs that they uncovered during their individual and group reflection time. After volunteers have shared, move on to the next slide to briefly discuss how the remaining two questions in the implementation plan will be addressed.



Slide 24

Meeting Teachers' Needs

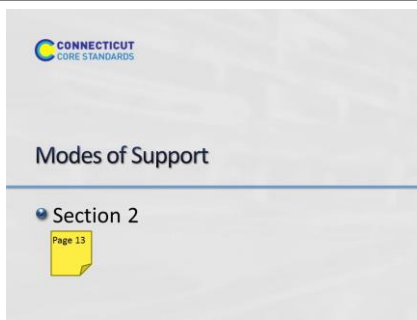
Review with participants that they now have a better idea of where the teachers in their school are with the stages of change for each of the four areas of their CCS-Math implementation that have been discussed, and have begun to identify some of the specific teacher needs that must be addressed as their implementation moves forward. Explain that the remainder of this module, Sections 2-5 will provide them with the ideas, resources, and suggestions for determining how teachers' needs can be met and what they need, in their current role, in order to provide support to teachers in each of these areas. Ask if there are any remaining questions. Answer those that are relevant at this immediate point, and place others on a piece of chart paper to make sure that they are answered at some point throughout the day. Then, release participants for a short break before beginning Section 2.



Slide 25

Blank.

Section 2



Slide 26

Section 2: Modes of Support

Section 2 Time: 60 minutes

Section 2 Training Objectives:

- To discuss, share, and determine coaching strategies to be used to meet teacher needs.

Section 2 Outline:

- (5 minutes) The facilitator will begin by discussing the fact that some needs can be met by providing information, some by having a conversation, but others may need a more formal approach such as modeling, or working side-by-side with the teacher. The facilitator will refer participants to descriptions of various examples of modes of support in their Participant Guide. Throughout the examination of support types, it will be stressed that the role of the Core Standards Coach is to provide support, not to evaluate teachers.
- (20 minutes) The facilitator will ask each table group to discuss an assigned mode of support. As small groups discuss, they will create a poster to promote their assigned mode of support and the benefits that can be had by both teacher and coach engaging in this manner of support. Examples of support to be examined are:
 - Modeling
 - Co-teaching
 - Co-planning
 - Coaching conversations
 - Analyzing student work
- (20 minutes) A representative from each table group will share the main ideas from their poster with the large group.
- (15 minutes) This section will wrap-up with participants discussing with their table group initial ideas for filling in the ‘how will their needs be met’ section of their Implementation Plan template.

Section 2 Supporting Documents*Modes of Support*

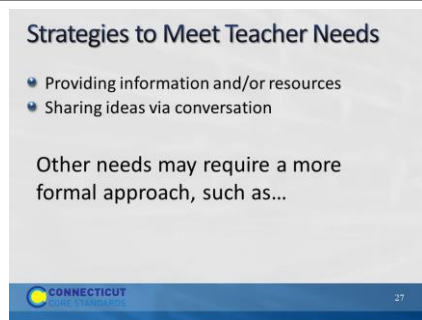
Notes on Modes of Support

Section 2 Materials

Chart paper

Markers

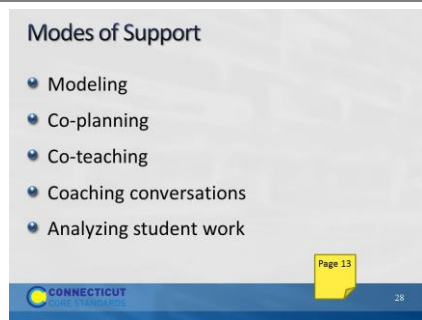
Sticky Notes



Slide 27

Strategies to Meet Teacher Needs

Stress that the role of the Core Standards Coach is to provide support, not to evaluate teachers. Explain that some teacher needs can be met by providing information and/or resources, some by having a conversation, but others may need a more formal approach. The next slide names some of these approaches.



Slide 28

Modes of Support

Refer to the descriptions of each of these modes of support in the Participant Guide and ask each participant to begin reading through the descriptions as you transition to the next slide. Also, remind participants that all of these are suggestions and that they need to think about each in terms of their current role and think about how they might modify any particular mode of support to fit both their own needs as well as the needs of the teachers with which they work.

Modes of Support

- Read the descriptions of the different modes of support in your Participant Guide.
 - Modeling
 - Co-planning
 - Co-teaching
 - Coaching conversations
 - Analyzing student work
- In your table groups, create a poster promoting your assigned mode of support, highlighting the benefits for both the teacher and the coach.



Slide 29

Modes of Support

Referring to the list on the slide, assign each table group one of the modes of support listed. As small groups discuss the benefits of engaging in the mode of support for both the teacher and coach, they will create a poster to promote it. As an example: if a coach and a teacher co-plan a lesson, the level of cognitive demand can be addressed because there are two people determining the level of cognitive demand of a task, making modifications to increase the level of cognitive demand of the problem, and planning for instructional strategies that will allow the level of cognitive demand to stay at the desired level.

Ask a representative from each table group to display the table’s poster and describe the benefits of the mode of support that they were assigned to the large group. As each group presents, participants can record notes in their Participant Guide.

How will teachers’ needs be met?

- Which modes of support will best meet the needs you identified on the Implementation Plan Template?
- Discuss your initial ideas with your table group.



Slide 30

How will teachers’ needs be met?

Ask participants, given the exploration of various modes of support, to consider how they could fill in the ‘how will their needs be met’ section of the Implementation Plan template for each of the four areas, and discuss their initial ideas with their small group. Remind participants that how to meet teachers’ needs is not limited to the ways that were discussed. In some cases, providing resources or having a conversation may meet a need. A key point here is that participants are examining needs and matching the best mode of support for meeting that need.

Transition to the next section by telling participants that whatever mode of support they choose, the primary purpose is to engage their teachers in meaningful reflection that will lead to change in their instructional practices.

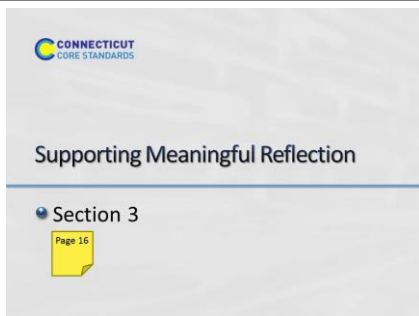
Note: Depending on where you are with time, and with when lunch is scheduled at your location, either release teachers for lunch now, or go ahead and begin Section 3 and release them when there is a natural break in the section.



Slide 31

Blank.

Section 3



Slide 32

Section 3: Supporting Meaningful Reflection

Section 3 Time: 100 minutes

Section 3 Training Objectives:

- To examine the role of a coach.
- To understand the role of questioning and feedback, fostering meaningful reflection on the part of the teacher.
- To practice providing feedback on lesson plans and classroom observations.

Section 3 Outline:

- (10 minutes) The facilitator will engage participants in thinking about the role of a CCS-Math Core Standards coach. Using slides that clarify what the coach does and does not do, the facilitator will remind participants that most often a coach’s role is non-evaluative. In “coaching conversations”, teachers are provided with feedback on lesson planning or classroom visits that should promote meaningful reflection on the part of the teacher. The coach will often help the teacher by either raising questions or making suggestions for refinement of the lesson.
- (10 minutes) The facilitator will show a few slides on the characteristics of effective coaching questions. The facilitator will ask the large group if there are other tips for forming questions that will build trust in the coaching relationship while promoting the teacher’s spirit of inquiry and reflection and expand possible options for the lesson.
- (35 minutes) Participants will be paired in order to engage in coaching conversations about the lessons designed in Module 4. A person from one table group will take on the role of a coach and take about 10 minutes to look over the planned lesson designed by a “teacher” from a different table group and form purposeful questions for the teacher (using the EQUIP Rubric or the UDL Principles as a basis for these questions). Another 5 minutes will be given for the coach to ask the questions about the intended implementation of the lesson. For example, “How will your students be engaged in productive struggle in this lesson?” or “Are there some other types of action and expression the students could be engaged in?” The two participants will then flip roles and the process will be repeated for the other participant’s completed lesson design template. Participants will debrief this activity during a large group discussion.
- (45 minutes) Explain that they will now turn their attention to providing prompts for reflection on observed classroom practices. Sample “lenses” that could be used for data gathering by the coach are listed on page 21 in their Participant Guide. Table groups will decide on a lens to use when observing a video lesson. After viewing the lesson, groups will discuss reflection prompts, based on the observation lens that they would use during a follow-up coaching conversation. A “jigsaw” approach will be used to allow participants to share their discussion prompts with other tables.

Section 3 Supporting Documents

Notes on Coach’s Role recording sheet

Purposeful Questions recording sheet

Forming Questions on a Lesson Design recording sheet

EQUIP Rubric

UDL Principles

Reflecting on the Coaching Conversation recording sheet

Lenses for Data Gathering

Data Gathering Tool

Classroom Observation Feedback recording sheet

Video

Teaching Channel – Probability of Dependent and Independent Events

<https://www.teachingchannel.org/videos/teaching-dependent-and-independent-events>

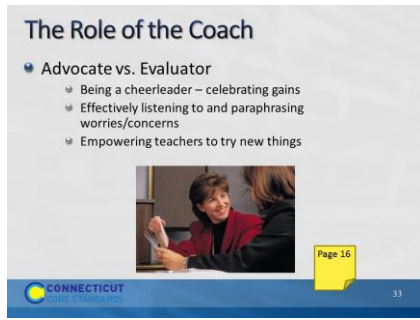
- stop the video at about 4:16. Although this is a grade 6 classroom, Probability is grade 7.

Section 3 Materials

Chart paper

Markers

Sticky Notes

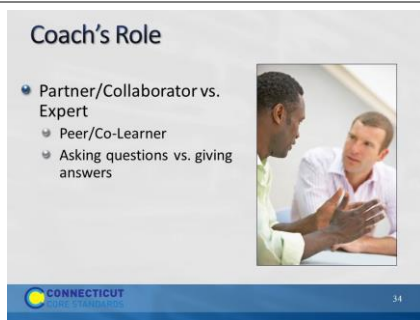


Slide 33

The Role of Coach

Clarify the coach’s role by using the next 3 slides. Participants can start making notes on these descriptions of the Coach’s Role in their Participant Guide. Remind participants that most often the coach’s role is as an advocate vs. as an evaluator. Make the following points:

- Effective coaching requires mutual respect. Building trust and developing a friendly working relationship is key. It’s important that teachers know that you value the job they are presently doing in school with their students (Felux, C., Snowdy, P., 2006). It is also important to regularly celebrate the gains that the teacher is making, even if they are small. Some teachers may need reassurance that they are making a difference. The coach needs to be mindful that change is a slow and incremental process.
- The coach needs to be a good listener - paraphrasing is a tool for building rapport in a coaching relationship. It lets the teacher know you are listening and that you have a shared understanding of the difficulty (Bay-Williams, J. & McGatha, M., 2014).
- Empower teachers – help them think about the things they can control and give them the freedom to take risks.




Slide 34

Explain that the coach, in this non-evaluative role, should act as a partner/collaborator vs. an expert. The teacher should perceive the coach as a peer/co-learner rather than someone who already knows all the

answers. The coach acts as a researcher on effective mathematics instruction. As has already been mentioned in Section 2, during a coaching conversation with teachers, the coach will provide feedback on lesson planning or classroom visits. Rather than telling the teacher how to improve, the coach can engage the teacher in meaningful reflection either by raising questions or making suggestions for refinement of the lesson or classroom practices. The coach should allow teachers the freedom to test things out and learn from their mistakes.

Coach's Role

- Advisor vs. Director
 - Providing suggestions for refinement of a lesson or classroom practice
 - Keeping the focus on student learning



CONNECTICUT Core Standards for Mathematics 35


Slide 35

The coach also acts as an advisor vs. a director by providing suggestions vs. giving answers. This empowers the teacher to make their own choices. You can build trust by keeping the focus on student learning rather than on the teacher.

Tell the participants that the focus of the remainder of this section is on developing skills in supporting meaningful reflection through the raising of questions and through making suggestions for refinement.

Purposeful Questions

- A coach asks questions to:
 - Stimulate reflection
 - Promote a spirit of inquiry (expand thinking and possibilities)



CONNECTICUT Core Standards for Mathematics 36

Slide 36

Explain that a coach needs to work at forming questions that will stimulate reflection on how content can be taught effectively to engage students. With well-worded questions the coach can build trust in the coaching relationship. The coach will often pose questions in a planning (pre-lesson) conversation and also in a reflection (post-lesson) conversation.

Think about the wording of these questions:

- What are some connections between this learning target and what your students have learned before?
- What formative assessment strategies could you use to see if students are understanding the concept?
- How did the lesson go compared to how you had planned it?

Page 17



Slide 37

Ask participants to read the questions on the slide (also in their Participant Guide) and give them a couple minutes to discuss in their table groups what they notice about the wording of the questions. Have members from different table groups share what they noticed with the large group. If participants don't mention the plurals used or the tentative language ("some", "could"), bring these characteristics out. These techniques open the conversation up to additional options – the coach should try to use open-ended questions to allow the teacher to express his or her ideas. Also note that the word "compare" in the last question elicits higher-order thinking. The next slide lists some of these facets of well-crafted questions.

Tips for Well-crafted Questions:

- Use plurals in your questions
- Embed tentative language ("might," "some")
- Ask open-ended questions
- Use verbs to elicit higher-order thinking ("compare," "predict," "evaluate")
- Presume positive intentions in your questions
- Use an approachable voice to signal inquiry vs. interrogation

(Bay-Williams, J., McGatha, M., 2014)

Pages 17-18



Slide 38

Participants can record notes about these ideas in the notes section of the *Purposeful Questions* chart in their Participant Guide. This list is adapted from a book mentioned in the resources (Bay-Williams, J. & McGatha, M., 2014). Ask the large group if they would add other tips for forming questions that will build trust in the coaching relationship while promoting the teacher's spirit of inquiry and reflection and expanding possible options for the lesson. Another example if not suggested: Try to avoid starting question with "Why...?" as this often puts a person on the defensive.

In preparation for the next activity, ask the participants to use their Lesson Design from Module 4 and pair up with a person from another table (you might help facilitate this by matching tables with the same number of participants) so that they can engage in coaching conversations about those lessons). Participants should make sure that they pair up with a person who was at a different table in Module 4.

Note: If participants do not have the Lesson Design from Module 4, have them go online and access a lesson that they can use for the activities in this section.

Engage in a Coaching Conversation:

- The coach will take ten minutes to look over the coachee’s lesson design and consider a couple of questions that could be asked about the lesson design and the implementation of the lesson.
- When forming questions, consider:
 - The EQuIP Rubric (copies on table)
 - UDL Principles (page 19)



Slide 39

Explain the process for engaging in coaching conversations with the large group. In each pair, a person from one table group will take on the role of a coach and take some time to look over the planned lesson designed by the “coachee” from a different table group and ask questions for clarification as necessary to understand the lesson itself. The coach should then draft at least two questions that they would use in terms of the coaching conversation. When drafting these questions the coach should think about the phrasing of questions about the lesson design and/or the intended implementation of the lesson (recording sheet for these is in their Participant Guide, *Forming Questions on a Lesson Design*). Suggest that they use the EQuIP Rubric or the UDL Principles as a basis for these questions. You might provide a few examples, such as, “How will your students be engaged in productive struggle in this lesson?”, “Are there some other types of action and expression the students could be engaged in?”

Engage in a Coaching Conversation:

- Ask your questions of the “coachee” and listen to the responses provided.
- Switch roles.



Page 18



Slide 40

Participants will have about 10 minutes to ask their questions of the “coachee” and listen to the responses provided. Give the signal for the two participants to switch roles and repeat the process for the other participant’s completed lesson design template. (15 minutes)

Reflect

- Think back to the tips for well-crafted questions as you evaluate the quality of your questions.
- What are some challenges you had?
- Forming questions is an art – again, the purpose is to move the “coachee” forward in his or her thinking.

Page 20



41

Slide 41

The facilitator will wrap up this part of the section by debriefing with the large group about experiences during the coaching conversations. They can make notes about the experience in their Participant Guide. Remind participants that asking well-crafted questions is an art and will take practice and reflection. (5 minutes)

Explain that they will now turn to their attention to providing feedback on classroom instruction.

Data Collection

What “lenses” could be used for data collection in a classroom observation as a Core Standards Coach?



Page 21



42

Slide 42

Explain that the focus of data collection in a classroom observation may be something identified by the teacher, a teacher team, or in response to a school-wide goal for the improvement of CCS-Math instruction. A classroom observer should set aside judgment and only make notes on what they see and hear (Bay-Williams, J., McGatha, M., 2014). Ask participants to turn to the *Lens for Gathering Data* in their Participant Guide where some possible lenses for data collection considered crucial for learning are listed and sorted into 4 categories (content, classroom management, student engagement, and discourse). Have them look through the possibilities and ask if there are other lenses they would add to the list. (5 minutes)

Transition to the next slide by asking each table group to decide on one of the lenses to use when observing a video lesson. Coaches need to be cautious about overwhelming teachers with too many change expectations at once, so focusing on 1 or 2 lenses is probably best while observing a lesson.

Note: Point out that the CCS Classroom “Look Fors” have been placed on the tables. If all the members of a table group are already familiar with these, they can choose one of the 6-8 “Look Fors” under the categories of Coherence or Rigor (p. 20) or one of the “Look Fors” described for the Standards of Mathematical Practice (p. 23–24) instead of one of the lenses in the participant guide.

Observe the lesson



Teaching Channel video – Probability of Dependent and Independent Events
<https://www.teachingchannel.org/videos/teaching-dependent-and-independent-events>

Slide 43

Instruct participants to use the Data-gathering Tool in their Participant Guide when observing the video lesson (Teaching Channel video – Probability of Dependent and Independent Events

<https://www.teachingchannel.org/videos/teaching-dependent-and-independent-events>

- stop the video at about 4:16). Although this is a grade 6 classroom, Probability is grade 7. Each table will use their chosen lens to focus their observation. Emphasize that the coach will want to use the results from data gathering to engage the teacher in critical reflection about student learning.

Classroom Observations Feedback

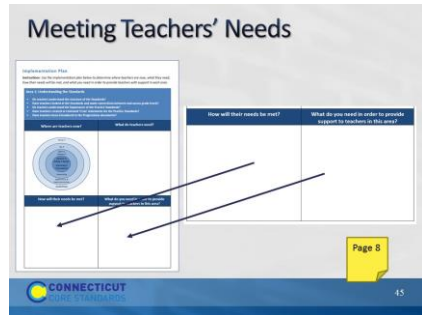
- With your tablemates and based on your observation lens record:
 - One commendation (a celebration)
 - One question that would engage the teacher in critical reflection
 - One suggestion to move the teacher’s thinking forward

Page 23

Slide 44

After viewing the video, ask the table groups to discuss what a coaching conversation that provides supportive feedback might look like using the *Classroom Observations Feedback* recording sheet (10 minutes). Use a jigsaw approach to have participants share their reflection prompts with other tables that had different lenses (10 minutes). Begin to wrap up Section 3 by bringing the whole group back together and discussing the potential benefits, challenges, and roadblocks that they might encounter when providing teachers with feedback on lesson plans and/or lesson implementations. One roadblock that might come up is that teachers may not feel comfortable with allowing them in to observe a lesson. If this is the case, explain that the culture of the school or how observations have been handled by others in the past may be the cause of this being a roadblock now. One way to address this for coaches is to invite teachers into their own classrooms to observe them teaching. And then having a coaching conversation with the teacher that completed the observation playing the role of the coach. This will model the process for the teacher and allow them to see firsthand what the experience is like and to perhaps get them to open up to the idea. Another potential roadblock is time. Many coaches and/or teachers may not have the time throughout the day to conduct an observation. If this is the case, one way that this could be addressed is through videotaping oneself teaching. If there are no volunteers, again the coach can model this and tape themselves and offer it to other teachers during a working session in order to receive feedback from teachers. Or, and this allows for the teaching of the

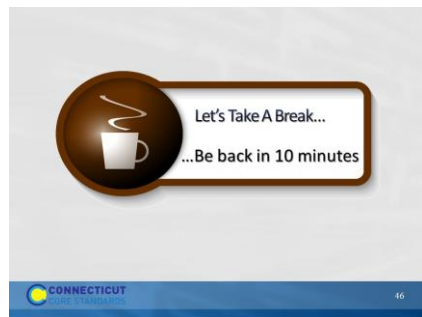
observation/feedback process, watch a school-neutral video online and everyone can participate in providing ‘feedback’ to the teacher just as we did in this session. As time permits, ask for suggestions such as these in order to address some of the other challenges and/or roadblocks.



Slide 45

Meeting Teachers' Needs

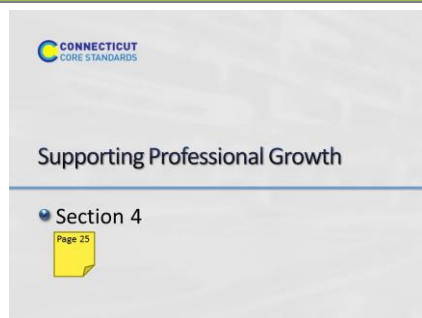
Before transitioning to Section 4, have teachers go back to their implementation plan and add in any additional ideas that they have for how teachers’ needs will be met and to identify anything that they might need in order to continue to provide support to teachers.



Slide 46

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Section 4



Slide 47

Section 4: Supporting Professional Growth

Section 4 Time: 65 minutes

Section 4 Training Objectives:

- To identify and examine tools and strategies that can be used to provide teachers opportunities for continued professional growth.

Section 4 Outline:


- (10 minutes) Section 4 focuses on helping participants plan for supporting and sustaining change within their school. This section begins with the participants discussing, in small groups, strategies that they currently employ to provide teachers with ongoing professional support, the opportunities teachers have to collaborate and the topics/tasks at the center of those activities, and the resources that they use to increase communication and collaboration with and among their teachers.
- (25 minutes) Within their small group, participants will break up into three smaller, micro groups. Each micro group will focus on one of three topics: ongoing professional support, opportunities for collaboration, and tools for collaboration and communication. Micro groups will then meet with others for the topic that they have chosen to explore and discuss provided resources, topics, and so forth.
- (20 minutes) When the exploration and discussion time is over, participants will rejoin their work group and take time to provide information and insights gained from their micro group discussions.
- (10 minutes) As a result of the small group discussion, participants will add any information, resources, etc., that they wish to use to help with addressing areas of need identified in Section 1 and to move their school’s CCS-Math implementation forward.

Section 4 Supporting Documents

Resources for Collaboration and Communication
Strategies for Ongoing Professional Support
Ways to Work Together

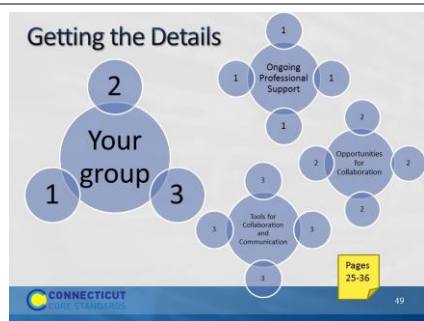
Section 4 Materials

Chart paper
Markers
Sticky Notes

<p>Supporting and Sustaining Change</p> <p>At your table discuss the following:</p> <ul style="list-style-type: none"> • How are teachers currently provided with ongoing support? • What opportunities do teachers have to collaborate? What is the central focus of teachers’ current collaborative efforts? • What resources are currently being used to increase collaboration and communication among teachers?  <p>Slide 48</p>	
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Supporting and Sustaining Change

Section 4 focuses on helping participants plan for supporting and sustaining change within their school by thinking about ongoing teacher support, collaboration, and communication. Begin this section by explaining to participants that now that they have had the opportunity to examine various modes of support and, in particular, coaching conversations, they will now look at some ways to provide ongoing support to teachers that do not always require face-to-face interaction and through ongoing opportunities for collaboration and communication. Ask participants to start this conversation by discussing, in small groups, strategies that they currently employ to provide teachers with ongoing professional support, the opportunities teachers have to collaborate and the topics/tasks at the center of those activities, and any resources that they use to increase communication and collaboration with and among their teachers. Allow approximately 5-7 minutes for this small group discussion, and then bring the whole group back together to debrief their small group discussions. Ask for volunteers to share their ideas and, as they share, chart their responses on three separate pieces of chart paper labeled: Ongoing Professional Support, Opportunities for Collaboration, and Tools for Collaboration and Communication. Hang the chart paper strategically in the room as these will be utilized later in this section.




Slide 49

Getting the Details

Explain to participants that in order to get ‘maximum coverage’ of ideas and discussions they will now jigsaw the strategies provided within the Participant Guide. Have each person within a table group count off from 1 to 3 and then instruct all of the 1’s to go to one table, 2’s to another, and 3’s to a third. Depending on the total number of participants there may be multiples of each table which is fine. Further explain that within their smaller, micro groups, they will focus on one of three topics: ongoing professional support, opportunities for collaboration, and tools for collaboration and communication. Assign a focus area to each group and then allow 20-25 minutes for each group to complete the focus area assignment/discussion in their Participant Guide. As groups work, be sure to visit each group to offer specific assistance and answer specific questions.

Note: As participants begin their work, explain that each of the three areas has several strategies associated with the focus. For example, opportunities for collaboration has eight different strategies associated with this focus.

Putting the Pieces Together



At your table discuss the following:

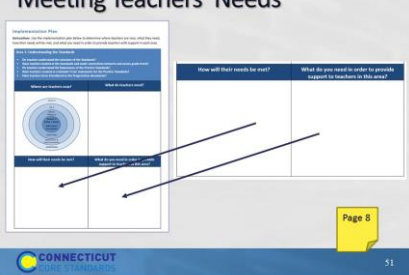
- Ideas/key points from your micro-group discussions.
- Considerations of how you might bring these ideas back to your school.

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Slide 50

When the exploration and discussion time is over, have participants rejoin their work group and take approximately 10-15 minutes to provide information and insights gained from their micro-group discussions. Begin to wrap-up Section 4 by debriefing the small group discussions and add to the chart paper created during the opening discussion for Section 4. Be sure to highlight the types of needs that can be addressed.

Meeting Teachers' Needs



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Slide 51

Meeting Teachers' Needs

Before transitioning to Section 5, have participants go back to their implementation plan and continue to fill in ideas that they have for how teachers' needs will be met and to identify anything they might need in order to continue to provide support to teachers. **Note: As participants are working place four pieces of chart paper around the room in anticipation for Section 5 work. Label each piece either: Understanding the Standards, Content Knowledge, Instructional Practices, and Designing CCS-Math Learning.**

Section 5

CONNECTICUT CORE STANDARDS

Sustaining Change

Section 5

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Slide 52

Section 5: Sustaining Change

Section 5 Time: 30 minutes

Section 5 Training Objectives:

- To receive feedback on coaching plans.
- To wrap up Modules 1–5.

Section 5 Outline:

- (25 minutes) Participants will complete a gallery walk in which they will visit four different spots around the room. At each spot, they will discuss with others each of the four areas covered by Modules 1–4:
 - Understanding the Standards
 - Content Knowledge
 - Instructional Practices
 - Designing CCS-Math Learning

For each topic, participants will discuss any remaining questions/needs, and provide suggestions or strategies for meeting the needs, etc. Then, they will add either a question, need, or strategy to the chart paper for the corresponding topic.

- (5 minutes) After everyone has addressed all four topics, participants will come together as a large group to discuss their needs and strategies for each. The facilitator will wrap up this section by providing additional resources for building coaching skills and answer any remaining questions.

Section 5 Supporting Documents

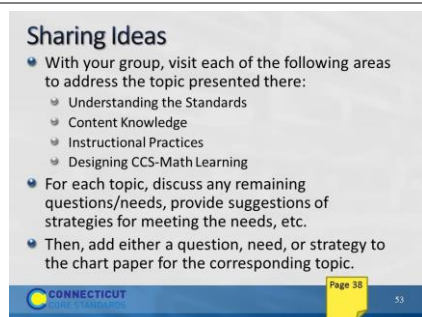
Additional Ideas for Support

Section 5 Materials

Chart paper

Markers

Sticky Notes



Slide 53

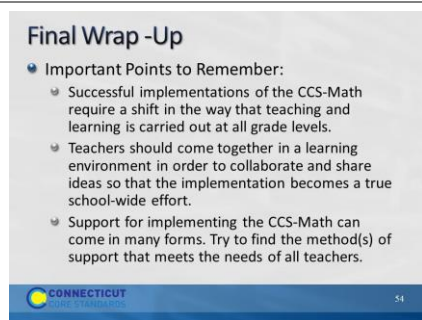
Sharing Ideas

Place participants in grade level alike or course alike groups and explain that with their group they will visit and rotate through each of the following areas:

- Understanding the Standards
- Content Knowledge
- Instructional Practices
- Designing CCS-Math Learning

At each piece of chart paper, groups should discuss any remaining needs that they have found in that area and should add a question and a need to the chart paper. Then, if they have an answer/idea/strategy to address a question posted by another group, they should add that answer/idea/strategy to the chart paper as well. Allow approximately 15-20 minutes for participants to visit each piece of chart paper.

Then, bring everyone back together and review what is on each piece of chart paper as a result of their work and provide strategies and/or ideas for any remaining needs that have not been addressed.

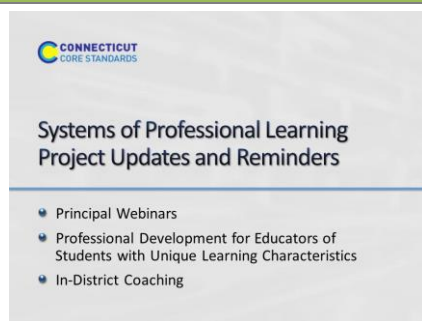


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Final Wrap-Up

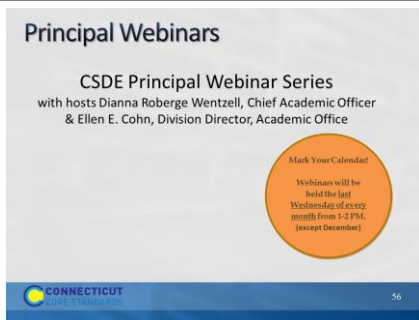
Wrap-up Modules 1-5 by providing the important points to remember on the slide. Ask if there are any remaining questions and then close out the session by transitioning to the closing activities.

Systems of Professional Learning Project Updates and Reminders



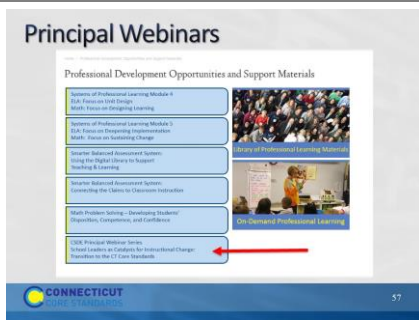
Slide 55

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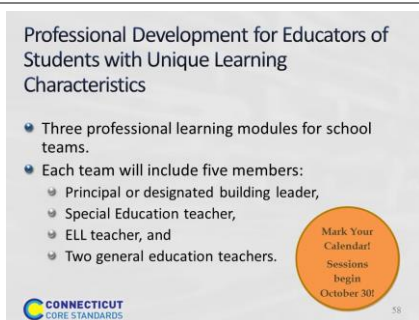
Slide 56

CSDE is hosting a series of webinars for principals this year. These are interactive sessions where principals can gain information about the Systems of Professional Learning project, ask questions, and share experiences. To register and for more information about the series, please visit ctcorestandards.org. Use the screenshot on the next slide to show participants where to look for more information.



Slide 57

More information about the sessions and registration information can be found under “Professional Development Opportunities” on the CT Core Standards website.



Slide 58

In partnership with the Connecticut State Department of Education, Public Consulting Group (PCG) will present a professional development series for educators working with students with unique learning characteristics. The goal of this professional development series is to enable local educators to implement CCS-aligned curriculum, instructional practices, and assessments to meet the needs of a wide variety of learners.

Participants will attend as teams to empower educators to align efforts resulting in an inclusive environment, and increase their capability to foster change in their school systems.

Registration is open through the PCG “RegisterMe” website and accessible on the ctcorestandards.org website under the Professional Development link.

In the first module to be offered October through December, the full team from each school, including educators who work with English language learners (ELL) and students with disabilities (SwD), will explore the importance of a culture of **academic optimism** underpinned by the belief that through high expectations, trust in students and parents, and teacher efficacy that all students can learn. The morning will provide participants an overview of the power of a growth mindset in both students and teachers and discuss implications of adopting a culture of academic optimism in their schools and the collaboration required to achieve that goal. In the afternoon, teams will form a common understanding of **Universal Design for Learning (UDL)**, which provides the foundation and springboard for two subsequent modules that expand participants’ ability to support all learners through using a UDL approach to planning and teaching.

In-District Coaching

This work is being scheduled now by the RESCs. Please contact your local RESC with any questions regarding the Systems of Professional Learning coaching services.

ACES Leslie Abbatiello labbatiello@aces.org	CREC Ellen Retelle eretelle@crec.org	Education Connection Jonathan Costa costa@educationconnection.org
CES Eather Bobowick bbowick@ces.k12.ct.us	EASTCONN Scott Nierendorf SNierendorf@eastconn.org	LEARN Lynmarie Thompson lthompson@learn.k12.ct.us

CONNECTICUT
CORE STANDARDS

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The CSDE has announced that 66 LEAs have received an allocation of in-district coaching services to support implementation of the Connecticut Core Standards for the 2014–2015 school year. For information about your district’s allocation, check with your district administration and your local RESC.

Closing Activities

CONNECTICUT
CORE STANDARDS

Closing Activities

- Post-Assessment–CCS-Math
- Session Evaluation



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Post Assessment and Session Evaluation

- Where Are You Now?
- Assessing Your Learning.
- Please complete an online Session Evaluation. Your feedback is very important to us! The survey is located here:
<http://surveys.pcgus.com/s3/CT-Math-Module-5-6-12>

CONNECTICUT CORE STANDARDS 61

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This Post-Assessment will be the same as the Pre-Assessment they took in the beginning of the session. This assessment is to gauge their learning based on the activities of the full day session. Remind the participants to fill out an online Session Evaluation.

Key Resources

- ctcorestandards.org
- engageny.org
- achievethecore.org
- americaachieves.org



CONNECTICUT CORE STANDARDS 62

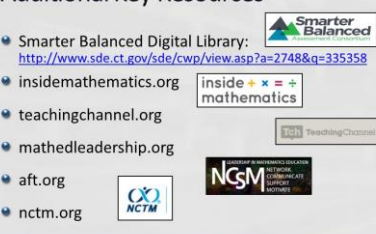
Slide 62

Some Key Resources

Remind participants of some of the key resources that they have available to them as they continue to provide support for the CCS-Math implementation at their school.

Additional Key Resources

- Smarter Balanced Digital Library: <http://www.sde.ct.gov/sde/cwp/view.asp?a=2748&q=335358>
- insidemathematics.org
- teachingchannel.org
- mathedleadership.org
- aft.org
- nctm.org



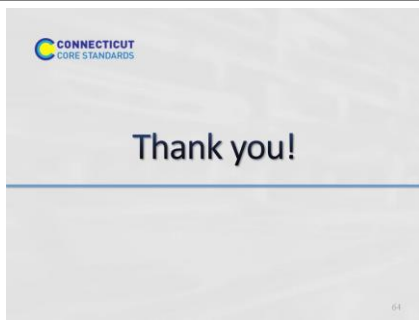
CONNECTICUT CORE STANDARDS 63

Slide 63

Some Key Resources

Remind participants of some of the key resources that they have available to them as they continue to provide support for the CCS-Math implementation at their school.

<http://www.sde.ct.gov/sde/cwp/view.asp?a=2748&q=335358>



Slide 64

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