



Foundations for Implementation - Session 7

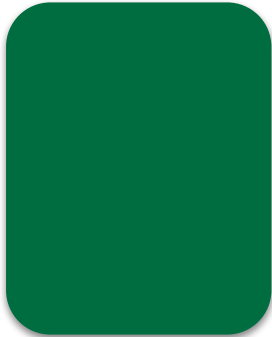
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Welcome!

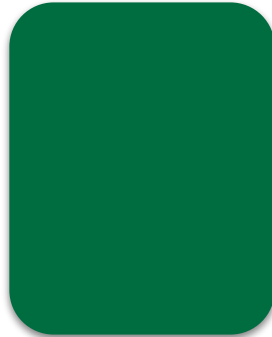
CPM Virtual Learning Series



Session Facilitators

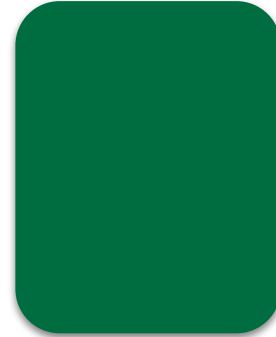


Name



Name

Support

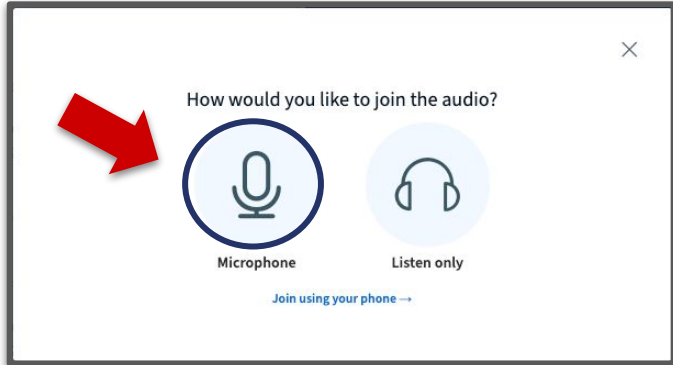


**Regional
Professional
Learning
Coordinator**

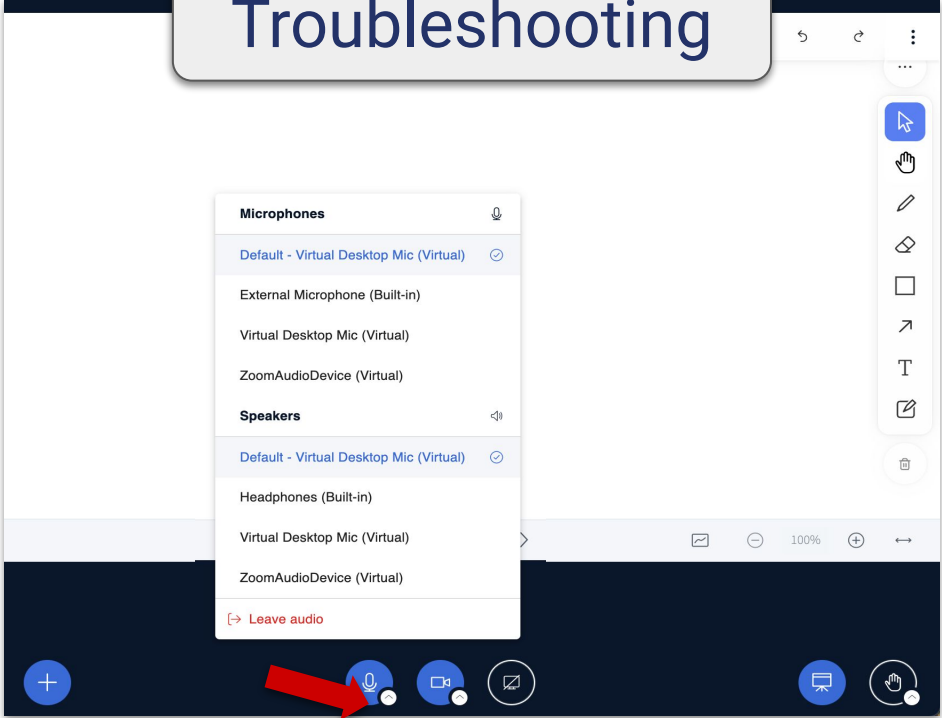
Tech Tip



Audio



Troubleshooting

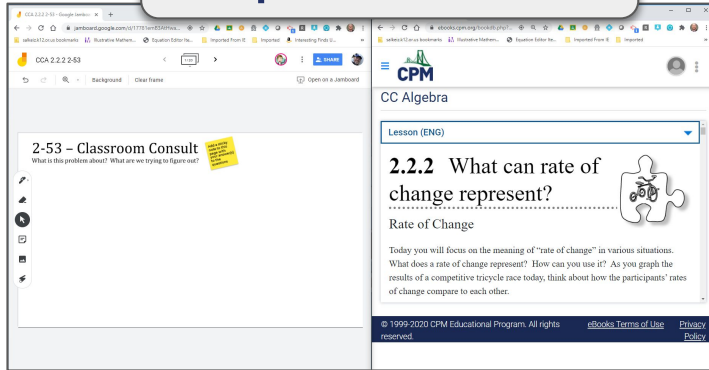


Tech Tip

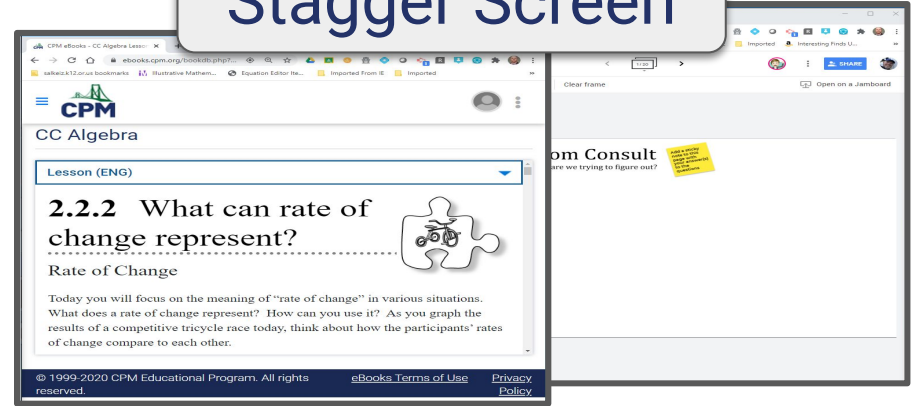
Setting up your screens



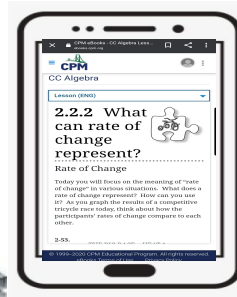
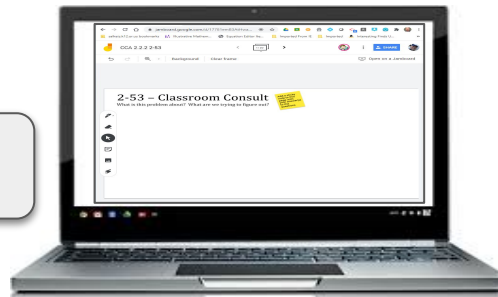
Split Screen



Stagger Screen



Multiple Devices



Opening



Ashley Boyd

FILE CABINET

	Summer Session	Fall Semester	Spring Semester
Live Learning Events	<input type="checkbox"/> Register and attend: In-Person Days 1-3 or Virtual Sessions 1-6	<input type="checkbox"/> Register and attend: In-Person Day 4 or Virtual Sessions 7-8	<input type="checkbox"/> Register and attend: In-Person Day 5 or Virtual Sessions 9-10
Content Modules (On-Demand)	<input type="checkbox"/> Chapter 1 <input type="checkbox"/> Chapter 2	<input type="checkbox"/> Chapter 3 <input type="checkbox"/> Chapter _____	<input type="checkbox"/> Chapter _____ <input type="checkbox"/> Chapter _____
Instructional Modules* (On-Demand)	<input type="checkbox"/> 1 - Closure and Team Assessments <input type="checkbox"/> 2 - Review & Preview <input type="checkbox"/> 3 - Intentional Planning	<input type="checkbox"/> 4 - Supporting Productive Struggle	<input type="checkbox"/> 5 - Assessment Practices

08. Algebra Tiles Sessions

00 CPM Participant Handbook - [Public].pdf

Opening

Outcomes



Participants will:

Make connections between the CPM Implementation Progress Tool and classroom practices.

Connect productive struggle to CPM's three pillars.

Collaborate with and learn from other teachers.

Agenda

Session 7



Focus: Supporting Productive Struggle

- Icebreaker
- Struggles, Solutions, Actions
- Supporting Productive Struggle
- Closure

Guiding Principles

CPM Six Guiding Principles



Students deepen their mathematical understanding when they are engaged with concepts over time.



Students have significantly better retention of mathematics when concepts are grounded in context.



Student's involvement in effective study teams increases their ability to learn mathematics.



Effective study teams are guided, supported and summarized by a reflective knowledgeable teacher.



Assessing what students understand requires more than one opportunity.



When students and stakeholders embrace a growth mindset, they understand that mastery takes time, effort and support.

Opening

Working Agreements



- + Be willing to take **risks**.
- + Have a **visionary** mindset.
- + Stay **engaged**.
- + Explore and reflect on our **beliefs**.
- + Give **grace** to others and ourselves.

Change takes time, effort, and support!

Returner



First time



Opening Agenda



Focus: Supporting Productive Struggle

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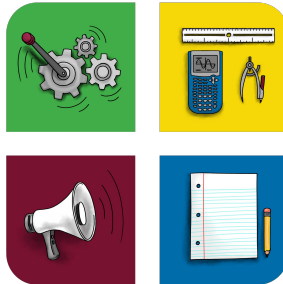
Icebreaker

Team Connections



Team Task

- + Meet your team for Session 7 - **(Screen 10)**
- + Decide on team roles - **(Screen 11)**
- + Discuss CPM's Three Pillars - **(Screen 12)**



Opening Agenda

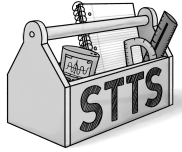


Focus: Supporting Productive Struggle

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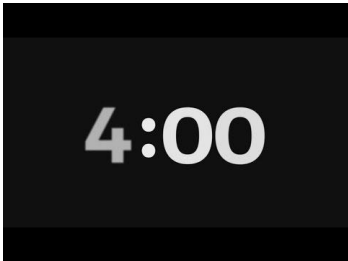
Struggles, Solutions, & Actions

CPM Implementation Self Reflection



Two Stars and a Wish

<p>Resource Manager</p> <p>★ Star - ★ Star - ♥ Wish -</p> <p><u>Ideas:</u></p>	<p>Facilitator</p> <p>★ Star - ★ Star - ♥ Wish -</p> <p><u>Ideas:</u></p>
<h3>Team #</h3>	
<p>Task Manager</p> <p>★ Star - ★ Star - ♥ Wish -</p> <p><u>Ideas:</u></p>	<p>Recorder/ Reporter</p> <p>★ Star - ★ Star - ♥ Wish -</p> <p><u>Ideas:</u></p>





THINK-INK-SHARE



Pick one of your stars.

Why is this star a success for you?



Opening Agenda



Focus: Supporting Productive Struggle

- Icebreaker
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- Supporting Productive Struggle
- Closure

Supporting Productive Struggle

Study Team and Teaching Strategy



Silent Debate

- + Students work in pairs.
- + Partner (1) is assigned the pro/for position, Partner (2) takes the con/against position.
- + Partners share a pencil and one sheet of paper. A prompt or topic is given by the teacher.
- + Partner (1) makes a pro, or supportive statement in writing.
- + Partner (2) reads the statement, and writes a comment against.
- + Process continues three or four times.

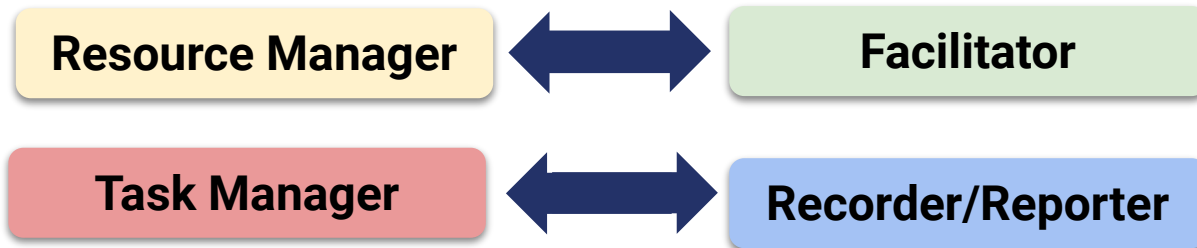
Supporting Productive Struggle

Silent Debate Partners



1. **Find your assigned partner** from your team and click on their name in the list of users.
2. **Start a Private Chat** by selecting your partners name to start a private chat.
3. **Set your status to applaud** once you and your partner have both said hello.

Partners:



Supporting Productive Struggle

Silent Debate



Silent Debate:

All students are capable of productive struggle.

Using the Private Chat feature, debate with your partner.

2:00

PRO Statements

CON Statements

Resource Manager



Facilitator

Task Manager



Recorder/Reporter

Supporting Productive Struggle

Silent Debate Debrief



Facilitator

Recorder/Reporter

Please Copy and Paste the best **PRO** statement into the public chat.

Resource Manager

Task Manager

Please Copy and Paste the best **CON** statement into the public chat.

Supporting Productive Struggle

Supporting Productive Struggle - Why?



Your Task:

- + **Read** excerpt from “CPM Statement about Learners who Sometimes Struggle”
- + **Respond** to the question in the the Public Chat:
What strategies have you used in your classroom to support students in productive struggle?
- + **Review** what your colleagues have shared in the Public Chat.

A black rectangular box with the text "4:00" in white, indicating a 4-minute timer.

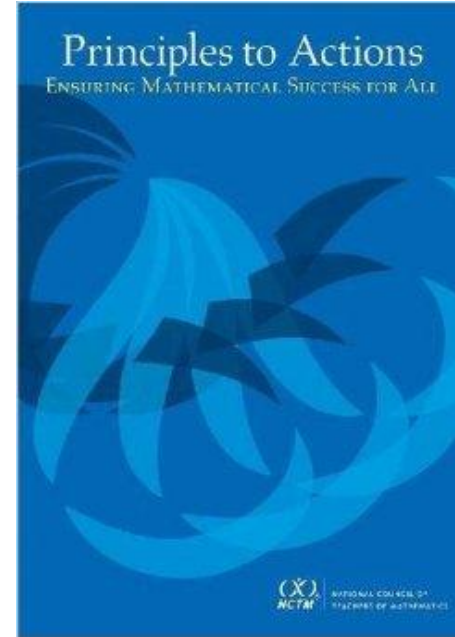
4:00

Supporting Productive Struggle

NCTM's *Principles to Actions*



Principles to Actions (PtA) **Ensuring Mathematical Success for All**



Supporting Productive Struggle

NCTM's 8 Mathematics Teaching Practices



1 Establish mathematics goals to focus learning.

2 Implement tasks that promote reasoning and problem solving.

3 Use and connect mathematical representations.

4 Facilitate meaningful mathematical discourse.

5 Pose purposeful questions.

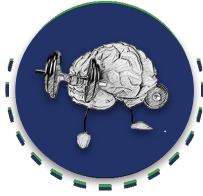
6 Build procedural fluency from conceptual understanding.

7 Support productive struggle in learning mathematics.

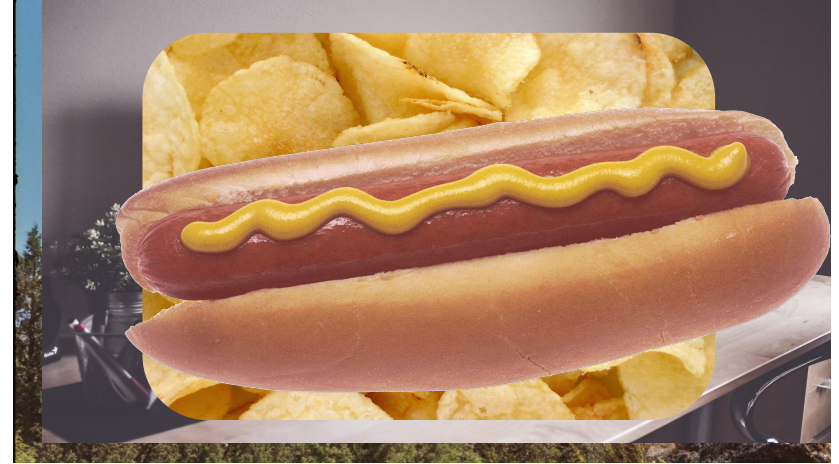
8 Elicit and use evidence of student thinking.

Brain Break

This or That

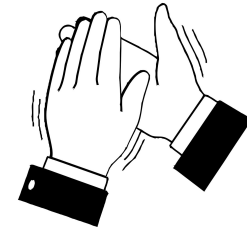


Which do you Prefer?



How to participate?

Post in the Public Chat or
change your status to match
each choice.



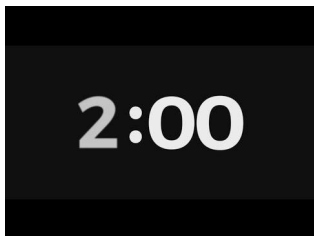
Supporting Productive Struggle

CPM Implementation Progress Tool - How?



Read the bottom section only.

Reflect on which pillar has been your greatest strength so far this year.



CPM EDUCATIONAL PROGRAM Implementation Support

Implementation Progress Tool

This form is designed to be used by CPM teachers in their first or second year of implementation, either as a tool used to reflect independently, in combination with other teachers (perhaps in a PLC setting), or in conversation with a coach or implementation partner. It can also be used as a tool to track implementation progress, identify and celebrate accomplishments, define priorities for goal setting, and suggest opportunities for future growth. Please note that not all of these elements of teaching and learning would be observed in a single lesson.

The form is structured around the three research pillars upon which the CPM program is built and is designed in three sections.

SECTION ONE describes a critical component that anchors each pillar in any classroom. This area is critical for successful implementation and may require shifts in teacher belief systems.

SECTION TWO describes what you might observe in regards to student learning in a classroom where each pillar is intact.

SECTION THREE lists instructional strategies and practices that teachers use to support each pillar.

SUGGESTIONS FOR USING THIS TOOL:

1. First, re-read and discuss the three pillars to ensure complete understanding of them. (You may want to reference the CPM executive summary for more specifics on each.)
2. Next, consider the description of each pillar listed in section one below. Ask yourself to what extent each pillar is present in your classroom.
3. Next, use the descriptions of desired student learning in section two to analyze what is currently happening in your classroom. What do you see students doing, saying, and accomplishing that shows evidence of the pillars?
4. Finally, use section three to hone in on instructional strategies and assess both your strengths and areas for growth. At what practices do you excel? Which do you find most challenging? Where would you like to spend time building your skills? For which pillar do you need the most support?

The three pillars represent researched best practice in math education around which the CPM program is designed.

Collaborative Learning

Research says students learn ideas more deeply when they discuss ideas with classmates.

Problem-Based Learning

Research says students learn ideas more usefully for other arenas when they learn by attacking problems.

Mixed, Spaced Practice

Research says students learn ideas more permanently when they are required to engage and re-engage with those ideas for months or even years.

SECTION ONE: The pillars that represent necessary first steps in any implementation.

Collaborative Learning

Students and teachers are aware of the purpose for and value of working in teams, and are familiar with team norms and roles.

Problem-Based Learning

Students and teachers share math authority as they value and engage in productive struggle. Teachers guide without taking over the thinking.

Mixed, Spaced Practice

Both individual lessons and chapters are followed, using suggested pacing. Review & Preview problems are assigned and valued as an essential part of learning.

Supporting Productive Struggle

CPM Implementation Progress Tool



Problem-Based Learning

Mixed, Spaced Practice

Both individual lessons and chapters are followed, using suggested pacing. Review & Preview problems are assigned and valued as an essential part of learning.

Are you being transparent with students that mastery takes time?

Are you spending over their thinking?

Supporting Productive Struggle

Classroom Connection



Focus Question:

How do you see the pillars supporting productive struggle in this classroom?



Opening Agenda



Focus: Supporting Productive Struggle

- Icebreaker
- Struggles, Solutions, Actions
- Supporting Productive Struggle
- Closure

Closure

Study Team and Teaching Strategy



Gallery Walk

- + Teams display posters or presentations.
- + Students explain and critique displayed work.
- + Students rotate to each location.
- + Feedback is given.

3:00

Visit each slide and provide additional solutions or ideas under each slide where there are bullet points in the speaker notes area.

Closure

Professional Learning Support



CPM PROFESSIONAL LEARNING PORTAL

- Home
- Live Events Schedule and Registration
- On-Demand Modules**
- 2023 Teacher Conference

CPM ON-DEMAND MODULES

Foundations for Implementation Modules **Other Self Enroll Modules** FAQ

Q Search CONTINUING SUPPORT CARD

[LINK TO THESE RESULTS](#)

EWORSPACE SUPPORT MODULE (ON-DEMAND)
Continuing Support

In this module, participants will...

- be introduced to the features of eWorkspace.
- differentiate between checking for ...

EWORSPACE ONBOARDING SESSIONS (LIVE)
Continuing Support

Live eWorkspace OnBoarding Sessions are available to support districts utilizing eWorkspace. To schedule a time that ...

TEACHER TOOLKIT - COLLABORATION, PACING, AND ...
Continuing Support

In this module, participants will...

- explore collaboration and familiarize themselves with [Study Team and Teaching ...](#)

PUBLIC RELATIONS ON-DEMAND MODULE
Continuing Support

In this module, participants will...

- consider why their district or site selected CPM and how the Three Pillars of CPM ...

<https://professionallearning.cpm.org/ondemand/#faq>

Closure

Implementing CPM - Follow UP



SECTION ONE: The pillars that represent necessary first steps in any implementation.

Collaborative Learning

Students and teachers are aware of the purpose for and value of working in teams, and are familiar with team norms and roles.

Problem-Based Learning

Students and teachers share math authority as they value and engage in productive struggle. Teachers guide without taking over the thinking.

Mixed, Spaced Practice

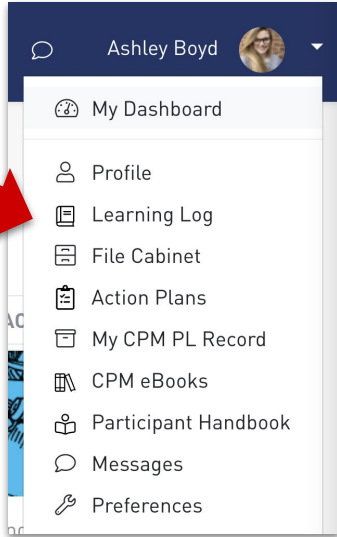
Both individual lessons and chapters are followed, using suggested pacing. Review & Preview problems are assigned and valued as an essential part of learning.

- + The Pillars represent the **necessary first steps** when implementing CPM.
- + Sessions 7-10 **focus on implementing CPM** as intended in your classroom.

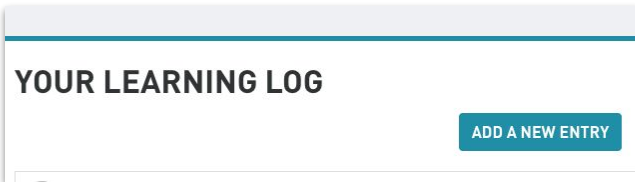
Learning Log

Steps to access

1.



2.



3.

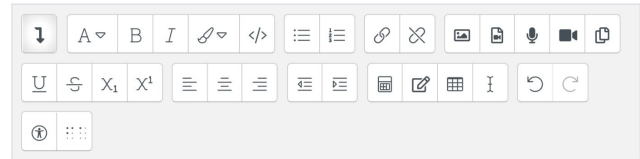
LEARNING LOGS: ADD A NEW ENTRY

▼ Collapse all

General

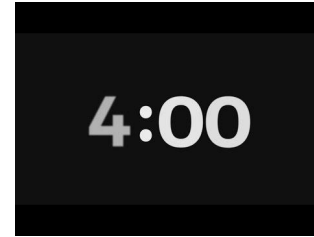
Entry title ⓘ *Productive Struggle*

Learning Log entry body ⓘ



To support productive struggle, I plan to do the following...

To address my struggles/wishes I will ...



Closure

Teacher Tips



Teacher Actions That Support Implementation

Use Teacher Notes
as intended.

Revisit and
Reinforce Team
Roles and Norms.

Create purposeful
lesson plans.

Utilize the
Launch- Explore-
Closure (LEC)
lesson structure.

Work all the
problems in the
lesson.

Honor Mixed, Space
Practice in
assessment design.

Closure

Study Team and Teaching Strategies



Ambassador	Fishbowl	Hot Seat	Notice and Wonder	Proximity Partner	Think-Pair-Share
Board Report	Fortune Cookie	Huddle	Numbered Heads	Reciprocal Teach	Traveling Salesperson
Carousel: Around the world	Gallery Walk	I have... Who has...	Pairs Check	Red Light, Green Light	Tuning Protocol
Carousel: Index Card	Give One- Get One	I Spy	Participation Quiz	Silent Debate	Turn and Talk
Carousel: Station Rotation	Glow and Grow	Jigsaw	Peer Edit	Swapmeet	Two Stars and A Wish
Dyad	GPS	Listening Post	Pick Three	Teammates Consult	Walk and Talk
Elevator Talk	Hot Potato	Math Chat	Players-Coach	Think-Ink-Pair-Share (T.I.P.S)	Whiparound

Closure

Outcomes



Participants will:

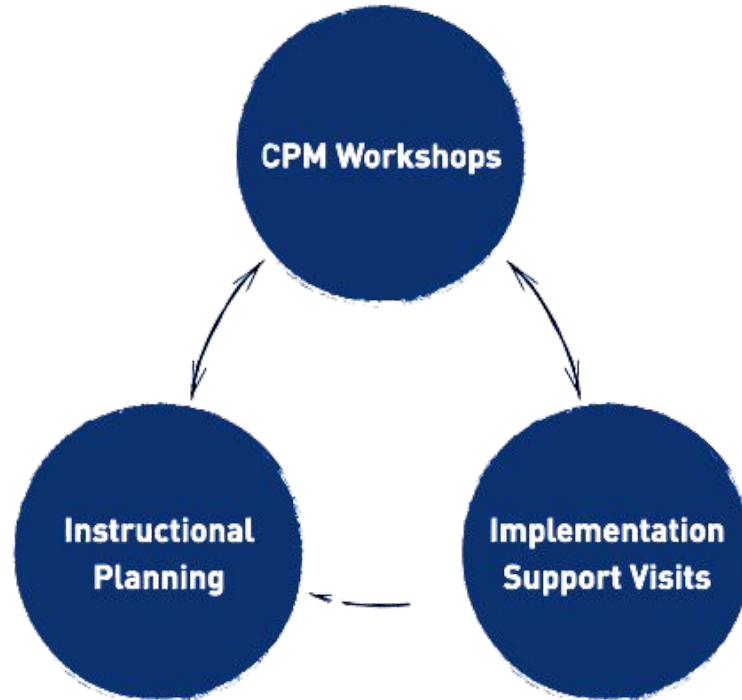
Make connections between the CPM Implementation Progress Tool and classroom practices.

Connect productive struggle to CPM's three pillars.

Collaborate with and learn from other teachers.

Closure

Triangle of Teacher Support



Closure

Foundations for Implementation Series

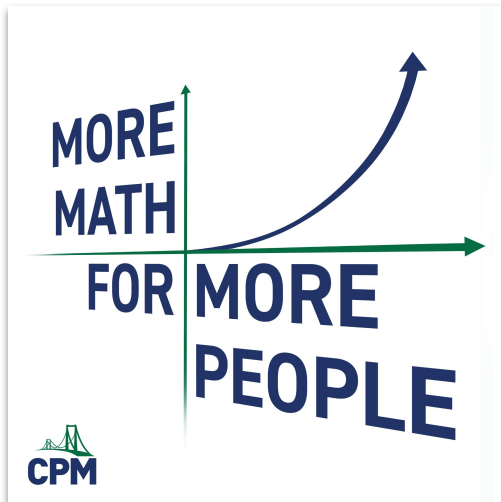


	Summer Session	Fall Semester	Spring Semester
Live Learning Events	<input checked="" type="checkbox"/> Register and attend: In-Person Days 1-3 or Virtual Sessions 1-6	<input type="checkbox"/> Register and attend: In-Person Day 4 or Virtual Sessions 7-8	<input type="checkbox"/> Register and attend: In-Person Day 5 or Virtual Sessions 9-10
Content Modules (On-Demand)	<input type="checkbox"/> Chapter 1 <input type="checkbox"/> Chapter 2	<input type="checkbox"/> Chapter 3 <input type="checkbox"/> Chapter _____	<input type="checkbox"/> Chapter _____ <input type="checkbox"/> Chapter _____
Instructional Modules* (On-Demand)	<input type="checkbox"/> 1 - Closure and Team Assessments <input type="checkbox"/> 2 - Review & Preview <input type="checkbox"/> 3 - Intentional Planning	<input type="checkbox"/> 4 - Supporting Productive Struggle	<input type="checkbox"/> 5 - Assessment Practices

* Instructional Modules 1-5 will be opened and available upon completion of the Introduction to Foundations Module.

If you support special education or intervention, Inclusion Modules may be completed in place of the Instructional Modules.

Closure Support



CONNECT WITH US

- Facebook
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- Teacher Research Corps Blog
- Slack for CPM Teachers
- More Math for More People Podcast

Podcast **News** Interested?

CPM

About CPM Curriculum For Educators For Parents

Shop Login

News You Can Use

- ACCESS & EQUITY ANNOUNCEMENTS ASSESSMENT
- COLLABORATIVE LEARNING COMMUNITY/PUBLIC RELATIONS
- INSTRUCTIONAL PRACTICES LESSON PLANNING STUDENT LEARNING
- TECHNOLOGY WORK-LIFE BALANCE

CPM: A STRUCTURED, CONSISTENT, AND EQUITABLE FRAMEWORK FOR TEACHING MATH

If you are a new teacher, or in a new school, you may not have had the opportunity to understand why your school chose CPM. You may not know whether you can trust the curriculum, and you may be tempted to spend time searching for new resources. Let's explore why you can trust CPM, and how trusting the curriculum can support effective teaching and learning.

STUDENT LEARNING TIPS

- STUDENT LEARNING
Our Homework Solution
7 minutes read
- STUDENT LEARNING
The Disengaged or Apathetic Student
4 minutes read

Closure

+ **Parking Lot**

+ **Attendance & Feedback**

Either scan the QR code

OR

Enter passcode in the portal

XXXXXX



Next Steps:

- Register for follow up Sessions 8, 9, and 10
- Continue Instructional Module 4 - Supporting Productive Struggle
- Continue working through at least four more Content Modules (Chapters 3+)



Text Font: Roboto

Title Font Size: 24

Subtitle Font Size: 18

Color coding:

Teacher Lens: 006DAB

Learning Log: 006DAB

Student Lens: 41AD49

Housekeeping: 233368

Content Module: 006D41

Thread: 006D41

Text should be primarily black or dark blue (#233368)

Note: Drop zones of icons on layouts are not moveable.

HOUSEKEEPING



ANCHOR PAGE



WELCOME



PUZZLE



TEAM GOAL



TEACHER LENS



LEARNING LOG



THREAD



CONTENT MODULE



MATH GOAL



STUDENT LENS



EQUITY LENS



ASSESSMENT



PRODUCTIVE STRUGGLE



RESEARCH PILLARS



MSP



COLLABORATIVE LEARNING



PBL



STUDY TEAMS



LEARNING TARGET



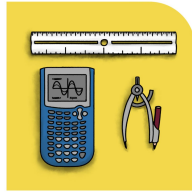
TASK CARD



TEAM ROLES ALL



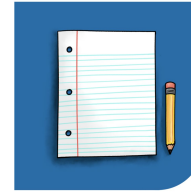
RESOURCE MANAGER



TASK MANAGER



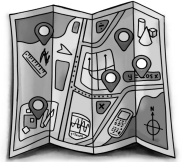
REPORTER RECORDER



FACILITATOR



IMPLEMENTATION ACTION PLAN



TEAM ROOMS



IMPLEMENTATION PROGRESS TOOL



STTS

