Leading for Change: Supporting Implementation

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Leading for Change: Supporting Implementation

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#MoreMath

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2

Welcome

Leading for Change: Supporting Implementation

The implications are clear. Curriculum matters, but how teachers use curriculum matters even more.

Short, J., & Hirsh, S., *The Elements* (2020), p 9

Please pick a card and use it to find your team. Introduce yourself to your teammates and share your biggest takeaway from the morning.

If you are the first person to sit at your table, you will be the Resource Manager for the day. Please make sure your teammates each have a handbook.

Opening
Housekeeping

- Bathrooms
- 10:00 AM – 1:00 PM
- Breaks scheduled and as needed
- Lunch
- Parking Lot poster
- Slide Deck w/ Anchor Slide: bit.ly/xxx

Opening
Agenda

+ **Opening**

+ Research Connections

+ The CPM Classroom

+ Closure

Opening
Outcomes

Leaders will:

+ Make connections between research-supported practices in mathematics instruction and the design of CPM's curriculum and professional learning.

+ Develop a clear vision of what a CPM classroom looks like while exploring tools that can be used to support implementation.

+ Gain understanding of the change process and the importance of experiences in shaping teachers' attitudes and beliefs.
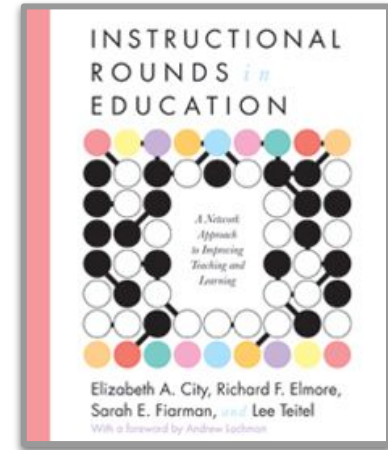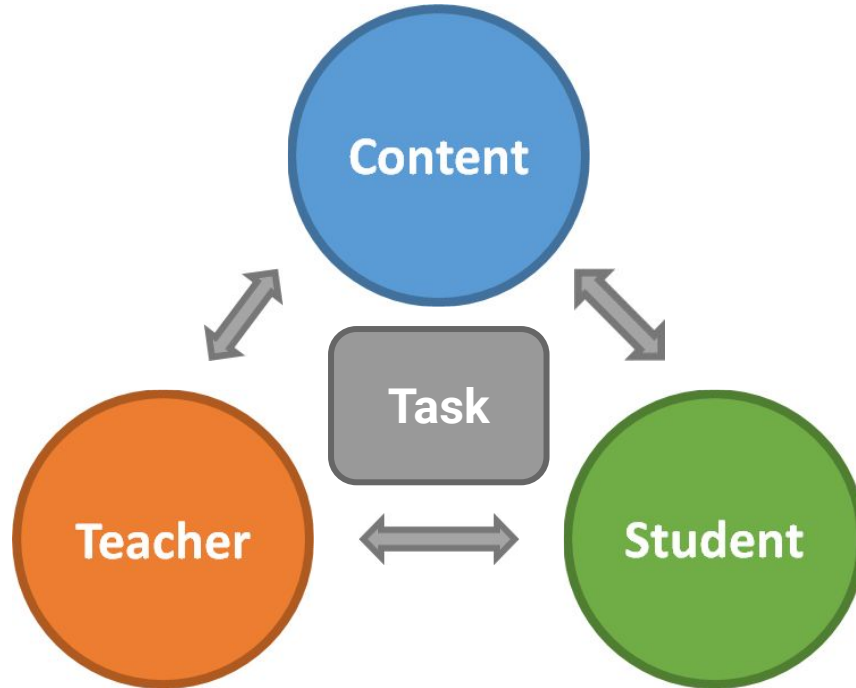
Opening
Working Agreements

+ Be willing to take **risks**.

+ Have a **visionary** mindset.

+ Stay **engaged**.

+ Explore and reflect on your **beliefs**.

+ Give **grace** to others and yourself.

Change takes time, effort, and support!

Opening
## The Instructional Core

Opening
Debrief the Lesson Experience

Math Chat

+ Each leader needs a marker and their completed Lesson Observation graphic organizer.

+ Silently circulate to each poster, recording your observations and making comments as desired. *(3 min)*

+ When you are done, be sure to read your colleagues' observations before returning to your seat. *(2 min)*

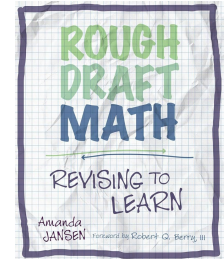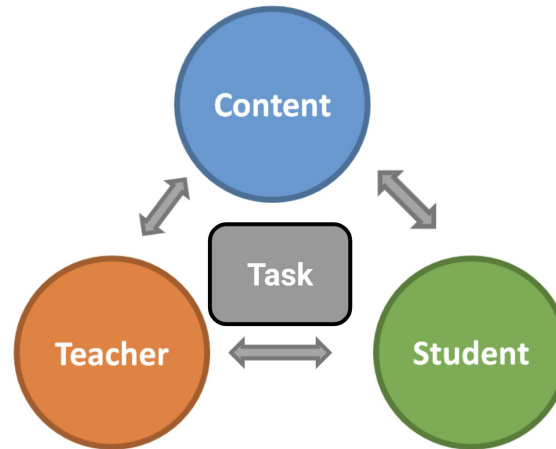# Opening
Leading for Change Action Plan
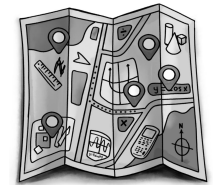
Prompts:

+ The role of the **teacher** is…

+ The role of the **student** is…

Research Connections

Agenda

+ Opening

+ **Research Connections**

+ The CPM Classroom

+ Closure

Research Connections
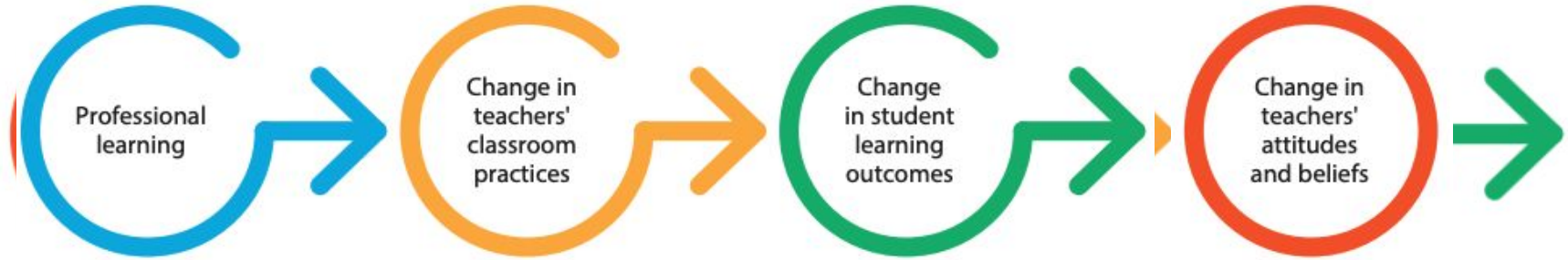
Flip the Script on Change

Many educational leaders, writers, and consultants think the best way to change teachers' beliefs is through logic, reason, and philosophical arguments.

Guskey, T. R. (2020), p. 19

Research Connections

Flip the Script on Change

Professional learning → Change in teachers' classroom practices → Change in student learning outcomes → Change in teachers' attitudes and beliefs →
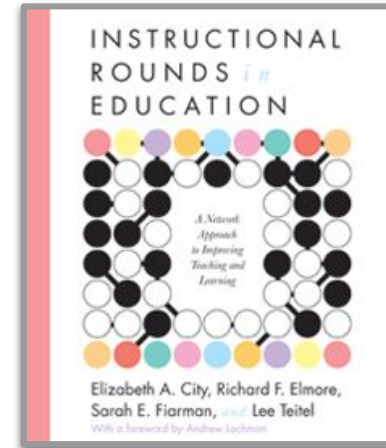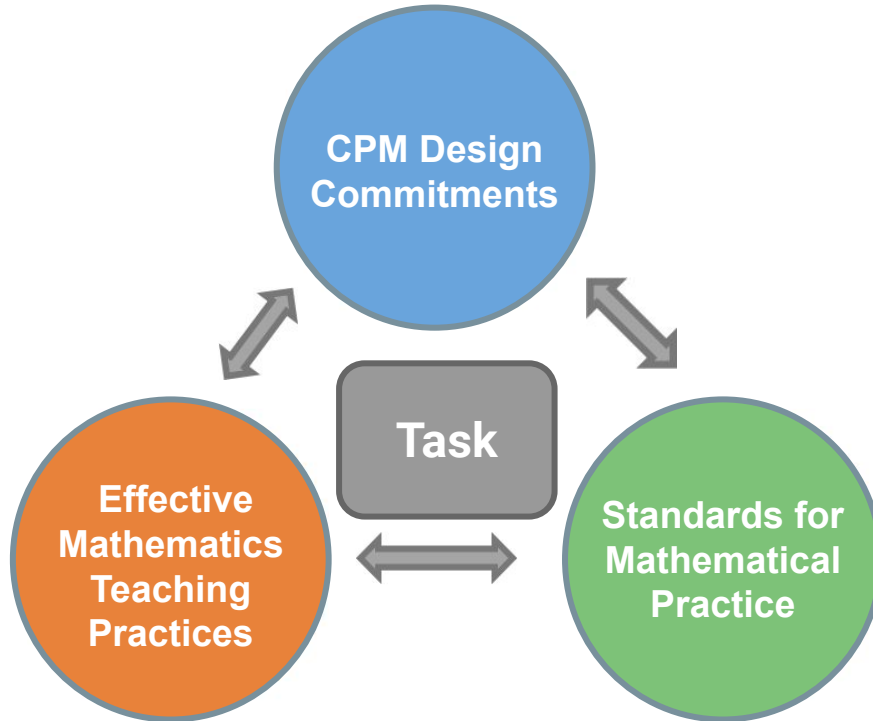
Because experience shapes teachers' attitudes and beliefs, change efforts must focus on altering teachers' experience.

Guskey, T. R. (2020), p. 22
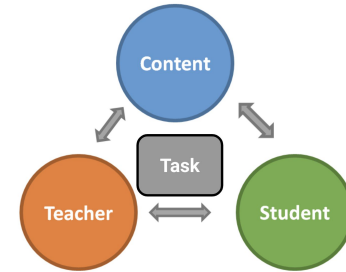
Research Connections

The Instructional Core

Research Connections

Debrief the Lesson Experience

Jigsaw (Four Corners)

Facilitator – Standards for Mathematical Practice

Resource Manager – Effective Mathematics Teaching Practices

Recorder/Reporter – CPM Design Commitments

Task Manager – CPM Design Commitments

Content

Task

Teacher

Student

Leadership

Research Connections

Debrief the Lesson Experience

Jigsaw (Four Corners)
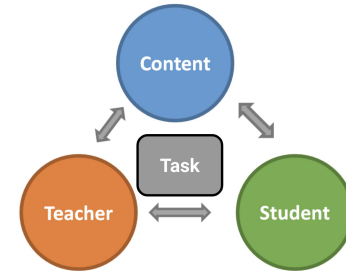
Your Task:

+ **Familiarize** yourself with your assigned lens. *(4 min)*

+ **Collaborate** with others in the same role to identify and record connections between your assigned lens and the observations recorded on the posters. *(6 min)*

+ Return to your original team and **share** the connections you discovered during a Gallery Walk. *(8 min)*

+ **Make additional connections** as your teammates share their discoveries.

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Research Connections

The Implementation Progress Tool: Three Research Pillars

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.
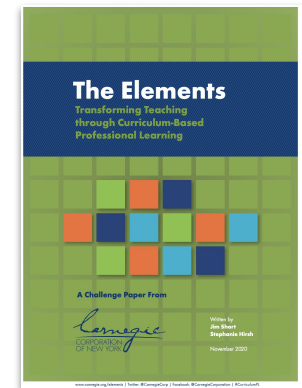
Research Connections
The Elements

The implications are clear. Curriculum matters, but how teachers use curriculum matters even more.

Short, J., & Hirsh, S., *The Elements (2020), p. 9*

Research Connections
Leading for Change Action Plan

Prompts:

+ What role does experiencing a CPM lesson through the lens of a student play in changing teachers' classroom practices and beliefs?

+ How will you ensure experiences for your teachers to support the necessary shift in classroom practices and beliefs?

Revisit and Revise:
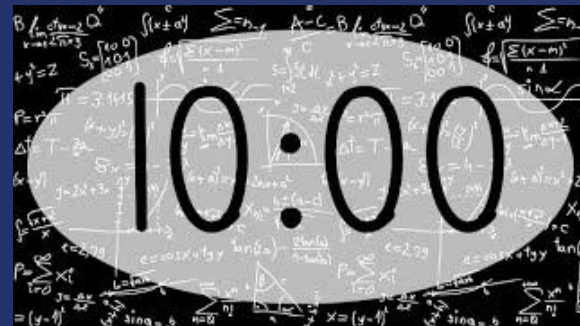
+ The role of the teacher is…

+ The role of the student is…

ROUGH DRAFT MATH
REVISING TO LEARN
Amanda JANSEN Foreword by Robert Q. Berry, III

Break
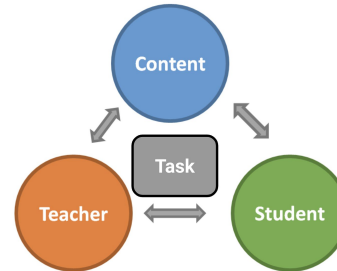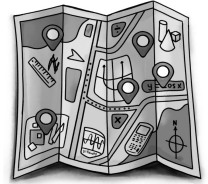

The implications are clear. Curriculum matters, but how teachers use curriculum matters even more.

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The CPM Classroom
Agenda

+ Opening

+ Research Connections

+ **The CPM Classroom**

+ Closure

The CPM Classroom

Course Design: Student-Centered, Problem-Based Learning

Teacher-Centered, Lecture-Based Learning

Formal definition

Teacher lecture and examples of basic problems

Students engage via whole class discussion

Students work on their own and problems increase in difficulty
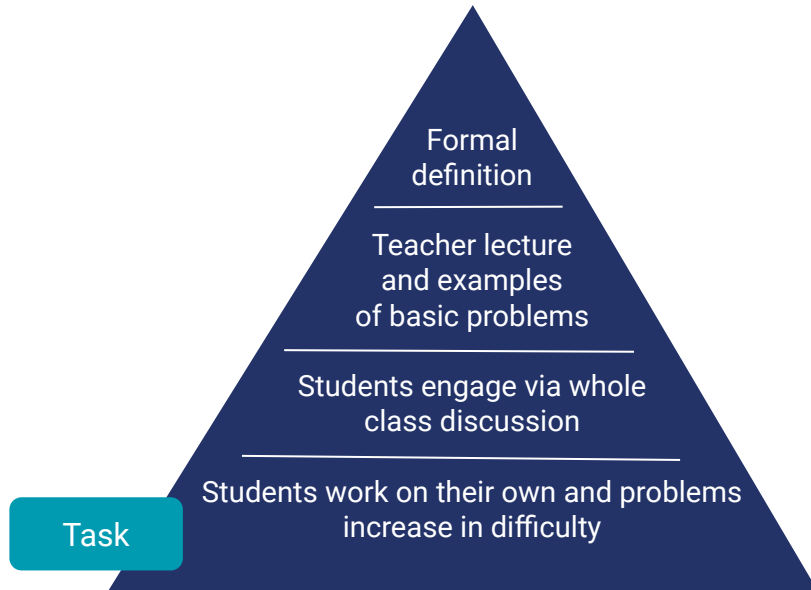
Task

A Classroom Using CPM Materials

Task

All students discuss a new problem or concept (explore).

Teacher asks questions to support and focus student learning.

Students and teacher summarize.

Clarifications and formal definitions.
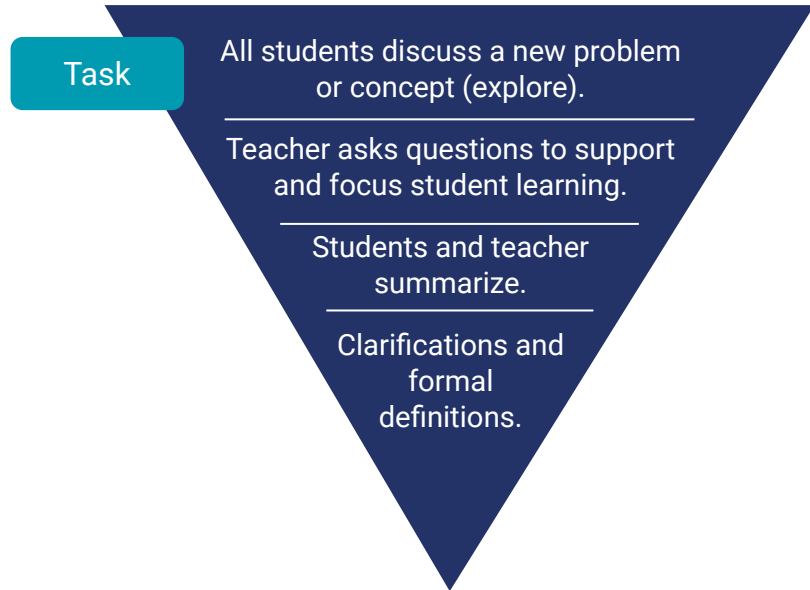
Ambitious Teaching

Taking Action, NCTM (2017), p. 3

The CPM Classroom
Ambitious Teaching

In **ambitious teaching**, the teacher engages students in challenging tasks and then observes and listens while they work so that he or she can provide an appropriate level of support to diverse learners. The goal is to ensure that each and every student succeeds in doing high-quality academic work, not simply executing procedures with speed and accuracy.

Taking Action, NCTM (2017), p. 3

The CPM Classroom
Implementation Progress Tool: Section One

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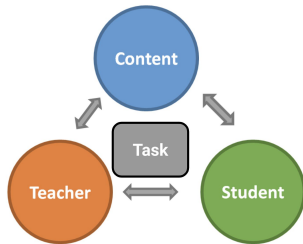
Collaborative Learning

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 CPM Classroom
Lesson Structure

The **Launch-Explore-Closure (L-E-C)** lesson structure is an essential part of implementing effective CPM lessons, as it supports ambitious teaching in a student-centered, problem-based classroom.
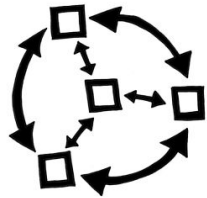
Launch – Lesson Opening

Explore – Structured Problem-Based Learning

Closure – Lesson Closure

The CPM Classroom

A CPM Lesson

Notice and Wonder

STTS

What do you notice?

What do you wonder?

What resonates with you?

MATH LESSON

The CPM Classroom
Implementation Progress Tool: Section Two

SECTION TWO: Features of desired student learning when the pillars are in place.

Collaborative Learning	Problem-Based Learning	Mixed, Spaced Practice
Students read and make sense of problems together.	Student thinking at varied depths of conceptual understanding are openly shared and valued.	Students work through lessons at an appropriate pace.
Students are able to listen to the ideas of others and communicate their own ideas both in teams and during whole class discussions.	Students demonstrate and value both conceptual and procedural knowledge.	Students understand that mastery takes time, effort, and support.
Students listen carefully to the thinking of others and respond with clarifying questions or extensions of their own.	Students look for, compare, and connect multiple models and solution strategies.	Students are aware of learning targets and periodically self-assess their progress towards those targets.
Students engage in productive mathematical discourse, justifying answers, creating viable arguments, and critiquing the reasoning of others.	Students recognize that incorrect work can be a stepping stone to learning and are willing to share and investigate their thinking.	Students solidify learning as they work on Review & Preview problem sets daily as intended.

★ observed
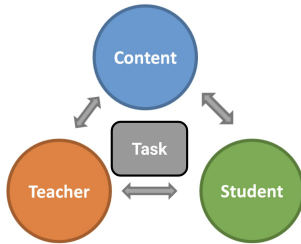
✓ discuss

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The CPM Classroom
Preparing to Teach

Good advanced *planning* is the key to effective teaching. Good planning "shoulders much of the burden" of teaching by replacing "on-the-fly decision making" during a lesson with careful investigation into the *what* and *how* of instruction *before* the lesson is taught.

Taking Action, NCTM (2017), and Stigler & Hiebert (1999), p. 218

Teacher Actions that Support *Implementation*

Use the Teacher Notes as intended.

Work all the problems in the lesson ahead of time, including the Review & Preview problems.

Intentionally prepare lessons.

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The CPM Classroom
Create Purposeful Lesson Plans

Relay

Your Task: *(2 minutes)*

What do you expect teachers to include in the process of preparing to teach a lesson?

+ Make sure you and your partner have a writing utensil and a single sheet of paper.

+ The first partner records and explains their first idea and relays the paper to their partner.

With your shoulder partner, compromise on your top three items to include when preparing to teach. Highlight them on your list.

+ The second partner discusses the idea if necessary, and records and explains another idea.

+ Repeat this process until time us up or you have a complete list.

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eBooks Access

enroll.cpm.org

The CPM Classroom
Create Purposeful Lesson Plans

Share Around

Your Task:

+ Work with your partner to find resources in the Teacher Notes to support your top three items to include when preparing to teach.

+ If time permits, look for support for other items on your list.

+ Be prepared to share your findings with the whole group.

The CPM Classroom
Create Purposeful Lesson Plans

Lesson Observation Tool

+ What is the learning target of the lesson?

+ How are prior knowledge/skills recalled to prepare students for the lesson?

+ What questions were asked to promote student thinking?

+ What teacher moves/strategies are used to support productive struggle and collaboration?

+ What modes of instruction are evident? (e.g., individual, small group, partner, whole class)

+ How is the learning target assessed?

+ What opportunity did students have to synthesize their learning?

The Role of the Leader
Leading for Change Action Plan
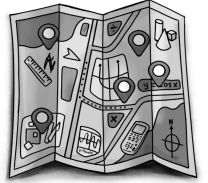
Prompt:

+ How can CPM's resources support implementation at your site?

Revisit and Revise:

+ The role of the teacher is…

+ The role of the student is…

+ How will you ensure experiences for your teachers to support the necessary shift in classroom practices and beliefs?

Break

Effective implementation of high quality instructional materials must be a priority and drive decision-making. Within a teacher's schedule, time to study, practice, and plan is essential to effective teaching, not merely nice to have.

The Elements, (2020), p. 44

Closure
Agenda

+ Opening

+ Research Connections

+ The CPM Classroom

+ **Closure**

Closure

Flip the Script on Change

Jigsaw

Professional learning → Change in teachers' classroom practices → Change in student learning outcomes → Change in teachers' attitudes and beliefs

Guskey, T. R. (2020, p.) 19

Your Task:

Facilitator – 1. Efforts to change attitudes and beliefs directly rarely succeed.

Resource Manager – 2. Change is a gradual and difficult process, especially for teachers.

Recorder/Reporter – 3. Feedback on results is essential.

Task Manager – 4. Change requires continued follow-up, support, and pressure.

*Everyone reads the first two paragraphs on page 21 and the article's conclusion: Altering Teachers' Experience.

Closure
Flip the Script on Change

Jigsaw and Team Share Around

Guskey, T. R. (2020), p. 19

Your Task:

+ **Read** the *first two paragraphs* at the top of page 21, your *assigned section* of the article, and the section titled *Altering Teachers' Experience.* (5 min)

+ **Take notes** on your graphic organizer. Be prepared to share a takeaway.

+ **Take turns sharing** your takeaways in a team Whiparound. Be sure to take notes.
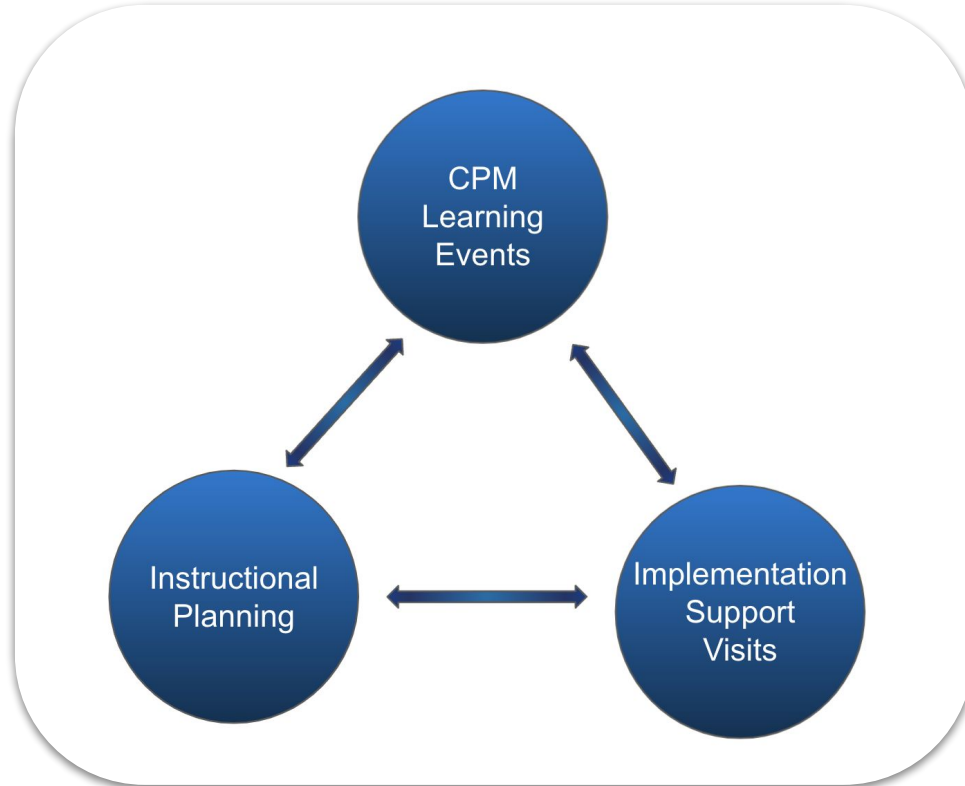
Closure

Flip the Script on Change

Support allows those engaged in the difficult process of implementation to tolerate the anxiety of occasional setbacks.

Guskey, T. R. (2020) p. 22,

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Closure
Triangle of Teacher Support
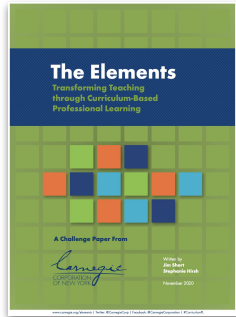
Closure
Professional Learning Progression for Teachers

	Summer Session	Fall Semester	Spring Semester

Live Learning Events	☐ Register and attend:
	   In-Person Days 1-3 **or**
	   Virtual Sessions 1-6
		☐ Register and attend:
		   In-Person Follow Up Day 1 **or**
		   Virtual Follow Up Sessions 1 and 2
			☐ Register and attend:
			   In-Person Follow Up Day 2 **or**
			   Virtual Follow Up Sessions 3 and 4

Content Modules (On-Demand)	☐ Chapter 1 ☐ Chapter 2	☐ Chapter 3 ☐ Chapter _____	☐ Chapter _____ ☐ Chapter _____
Instructional Modules* (On-Demand)	☐ 1 - Closure and Team Assessments ☐ 2 - Review & Preview ☐ 3 - Intentional Planning	☐ 4 - Supporting Productive Struggle	☐ 5 - Assessment Practices

Closure
Building Leadership Capacity

Curriculum-based professional learning must be ongoing and sustainable, which means it cannot be lead solely by outside experts. Schools and districts must plan for the future by building in-house expertise and leadership pipelines.

Short, J., & Hirsh, S., *The Elements* (2020), p. 41

Closure
Next Steps

Professional Learning for Leaders

| Launching for Leaders | Intro to Foundations Module | Leading for Change: Navigating the Process | Site-Based Leadership Program |

Closure
Site-Based Leadership Program

Together we will:

+ Guide successful curriculum implementation

+ Maintain professional relationships

+ Build leadership capacity

Closure
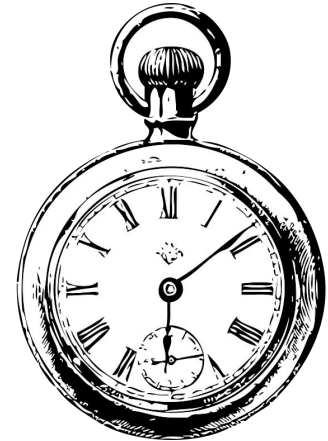## Teacher Tips − Implementation

Teacher Actions that Support *Implementation*

| Use the Teacher Notes as intended. | Work all the problems in the lesson ahead of time, including the Review & Preview problems. | Intentionally prepare lessons. |

This work takes **TIME…**

Closure

Outcomes

Leaders will:

+ Make connections between research-supported practices in mathematics instruction and the design of CPM's curriculum and professional learning.

+ Develop a clear vision of what a CPM classroom looks like while exploring tools that can be used to support implementation.

+ Gain understanding of the change process and the importance of experiences in shaping teachers' attitudes and beliefs.
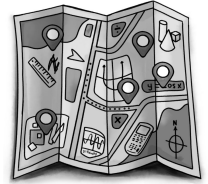
Leadership

Closure
Leading for Change

Because experience shapes teachers' attitudes and beliefs, change efforts must focus on altering teachers' experience. They must help teachers gather that evidence to verify positive results when they occur and make necessary revisions when they don't.

Guskey, T. R. (2020), p. 22

Closure

Leading for Change Action Plan

Revisit and Revise:

+ What role does experiencing a CPM lesson through the lens of a student play in changing teacher' classroom practices and beliefs?

+ How will you ensure experiences for your teachers to support the necessary shift in classroom practices and beliefs?

+ How can CPM's resources support implementation at your site?

Prompt:

+ What is your commitment for follow-up, support, and pressure throughout implementation?

Closure
Commitments

Elevator Talk with Proximity Partners

What is your commitment for follow-up, support, and pressure throughout implementation?

Your Task:

+ Summarize your commitment in a brief presentation. *(2 minutes)*

+ Be prepared to share your response with a **Proximity Partner**.

Wipebook

+ Register and get a 20% off code for online purchases.

+ Enter to win a reusable flipchart! A winner will be drawn after every 20 entries!

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Last Name

Select Job

ENTER

SCAN ME

Closure
Leading for Change

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+ Attendance
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	OR
	Enter passcode in the Portal
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MORE MATH FOR MORE PEOPLE

Session Resources

- Session Slide Deck pdf
- Leading for Change Action Plan
- Handbook pdf

Research Connections

- Standards for Mathematical Practice
- Effective Mathematics Teaching Practices
- CPM Design Commitments

The CPM Classroom

- eBook Access
- Implementation Progress Tool
- Implementation Progress Tool - Inspiring Connections

Closure

- Flip the Script on Change: Experience Shapes Teachers' Attitudes and Beliefs (Guskey, 2020)
- FTS Graphic Organizer
- Professional Learning Progression
- Site-Based Leadership Program registration page
- Professional Learning Checklist - Core Connections

MORE MATH FOR MORE PEOPLE

Additional Resources

- [Site-Based Leadership Program Frequently Asked Questions](#)
- [Instructional Rounds in Education: A Network Approach to Improving Teaching and Learning](#) , Elizabeth A City, et. al.
- ["Discretionary Spaces in the Classroom: Teacher Actions to Promote Equity"](#) , Varnes, Brusoe, and Lindemer
- [The Elements: Transforming Teaching through Curriculum-Based Professional Learning](#) , Short and Hirsh
- ["What Teachers Really Want When It Comes to Feedback"](#) , Guskey and Link
- [CPM's 2023 Research Base Introduction](#)

Research Connections

Debrief the Lesson Experience

Jigsaw (Four Corners)
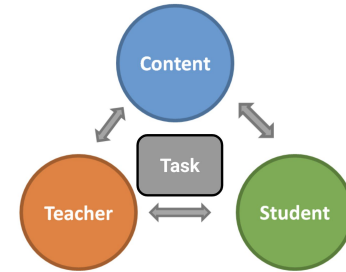
Representative – Standards for Mathematical Practice

Investigator – Effective Mathematics Teaching Practices

Organizer – CPM Design Commitments

Coordinator – CPM Design Commitments

Closure
Flip the Script on Change

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Guskey, T. R. (2020, p.) 19

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Organizer – 3. Feedback on results is essential.

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