

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.

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.

SECTION THREE: Instructional strategies evident when the pillars are in place.

Collaborative Learning	Problem-Based Learning	Mixed, Spaced Practice
Teachers create an environment of collaboration and consistently provide feedback on students' progress towards effective collaboration.	Teachers use the lesson launch to connect to prior learning and clearly communicate the learning target.	Teachers plan and pace lessons as intended, based on a thorough understanding of the learning progression of each chapter and the course as a whole.
Teachers use a variety of classroom modes (whole group, study team, partner, individual) at appropriate times within each lesson.	Teachers circulate purposefully to interact with all teams, monitoring and questioning the thinking of students.	Teachers anticipate common misconceptions and consider varied levels of understanding to differentiate and move all students towards stated learning targets.
Teachers use Study Team and Teaching Strategies (STTS) and Team Roles with purpose.	Teachers use questioning to uncover student thinking, and then provide opportunities for that thinking to be shared.	Teachers provide timely feedback on student practice of previously introduced skills and on beginning understandings of developing concepts.
Teachers hold students individually accountable within the team environment.	Teachers formatively assess student needs and take appropriate action to support accessibility.	Teachers elicit students' informal ideas and leverage them towards developing formal mathematical vocabulary and procedures at appropriate times in the course.
Teachers are aware of and take status issues into consideration when managing teamwork.	Teachers design and facilitate lesson closure that provides opportunities for students to make connections between various solutions and key mathematical ideas.	Teachers use varied assessments that are based on mastery over time and assess both conceptual and procedural knowledge.