Name								
Cycle 1	**Date**		**Cycle 2**	**Date**		**Cycle 3**	**Date**	
	Course/Grade			**Course/Grade**			**Course/Grade**	
	Period			**Period**			**Period**	
	Link to Reflection Notes			**Link to Reflection Notes**			**Link to Reflection Notes**	
Overarching Outcomes	• Implement the McGraw Hill Illustrative Mathematics program to support teachers and students in the teaching and learning of rigorous, standards-based, course-level mathematics. • Create classrooms that align with your vision of teaching and learning mathematics.							

Note: *These indicators will be the focus of October's coaching cycle. Read the descriptor and follow the link to learn more about each one. Mastery of the indicator is NOT an expectation for October. The goal is that observation evidence supports movement beyond "Awareness" or "Receiving" for each indicator. If evidence suggests that this is not the case, coaching support may be offered to support the movement.*

October Focus Indicator	Descriptor
C1.1 **Use of Learning Goal**	*The teacher leverages learning goal(s) to help students make connections and reflect upon their learning.*
C1.2 **Use of IM's Design Structure**	*The teacher facilitates the lesson using IM's problem-based design structure and approach. Key components include Invitation to the Mathematics (warm-up, and launches), Deep Study of Concepts and Procedures (independent and collaborative problem solving), and Consolidation and Application (activity and lesson syntheses, and cool-down).*
C2.3 **Launching Activities**	*The teacher effectively launches each activity, ensuring students understand the context (as appropriate) and what the problem is asking them to do.*
C2.4 **Engaging Students in Meaningful Small-Group Discussions**	*The teacher uses structures and routines to engage students in small-group discussions and holds students accountable to share (verbally or nonverbally) mathematical ideas relevant to the learning goals for the activity/lesson.*
C2.6 **Valuing Student Thinking**	*The teacher cultivates a community of learners where making thinking visible is both expected and valued.*
C3.2 **Collaborative Problem-Solving**	*When assigned collaborative work activities, students listen to each other and share their thinking throughout all stages of the problem-solving process.*

Section C: Classroom Implementation

Introduction

The ultimate measure of the impact of the combined efforts of IM Math™ and the school's conditions can be reflected in changes in teaching and learning for both teachers and students. Illustrative Mathematics' approach to problem-based learning may require a substantial shift in the daily habits and practices of teachers, which means the journey to implementation integrity in the classroom takes time. With the right school conditions, thoughtful and effective leadership, and dedicated, high-quality professional learning, the typical implementation journey to the final stages of Progression Practice may take 2–3 years of using IM Math™. Another factor to consider is teachers' and leaders' familiarity with using a problem-based approach.

Section C focuses on teachers' observable instructional moves and practices and on the resulting student learning behaviors. This section can be used as a non-evaluative classroom observation protocol or by teachers for self-reflection. C1 focuses on how teachers use the IM design structure, learning goals, and instructional routines as key instructional resources. C2 focuses on the instructional practices that teachers enact as they facilitate lessons in the classroom. C1 and C2 are assessed using a Progression of Practice that focuses on teacher *awareness* through full *integration*. C3 focuses on the student learning behaviors that occur as a result of teaching practices. Student learning behaviors fall on a scale ranging from *receiving* to *belonging*.

Progression of Practice for C1. Use of Key Curricular Resources and C2. Lesson Facilitation

Awareness	Experimenting	Implementing	Integrating
The teacher demonstrates an **awareness** of the approach (as described in the indicator's description) or resources, or is **exploring** how to use it.	The teacher **has begun to use the approach or resource**, but has yet to use it in alignment with the intended design.	The teacher **uses the approach or resource in alignment with the intended design**, and has **begun to form habits around key practices**.	The teacher **effectively uses the approach** or resource. The teacher **leverages the full intent of the curriculum**.

Progression of Practice for C3. Student Learning Behaviors

Receiving	Reacting	Interacting	Belonging
Students **receive information**, but engagement in the learning community is limited. Students must be **prompted by the teacher** to participate in the lesson, and make minimal or surface-level contributions.	Students **react to the teacher's prompts** and other students in the learning community. **Teaching is being done to the students**, instead of them being full contributors to the learning.	**Students are active participants** in the learning, and **interact with other students** in the learning community, with minimal prompting.	Students **demonstrate evidence of belonging to the learning community**. Students take an **active role in collaboration, discussion and reflection.**

Note: Adapted from The Illustrative Mathematics Implementation Reflection Tool (for Grades 6–12) by Danks, S., Wilson, J., Ramirez, L., & Ray-Riek, M. (2022).

C1. Use of Key Curricular Resources

The teacher uses learning goals and targets, the IM design structure, and math content and language routines as key instructional resources in the lesson.

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C1.1 Use of Learning Goals	*The teacher leverages learning goal(s) to help students make connections and reflect upon their learning.*	The **teacher shares the learning goal(s)** (e.g., Displays or reads goals aloud at the beginning of the lesson), but does not surface connections to student thinking or activities.	The **teacher shares the learning goal(s) and references them again** later in the lesson (e.g., to launch an activity, to help students make connections and synthesize learning, etc.).	The teacher **shares learning goal(s)** early in the lesson **to focus learning** and **revisits them throughout the lesson to surface connections** to prior or future learning, content and student thinking.	The teacher references learning goals at appropriate times throughout the lesson, and **invites students to share connections and reflect upon their learning**.
	Reflection Notes				

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C1.2 Use of IM's Design Structure	*The teacher facilitates the lesson using IM's problem-based design structure and approach. Key components include: Invitation to the Mathematics (warm-up, and launches), Deep Study of Concepts and Procedures (independent and collaborative problem solving), and Consolidation and Application (activity and lesson syntheses, and cool-down).*	The teacher **replaces or modifies activities**, such as the warm-up, in a way that **reduces rigor** or **deviates from the lesson learning goals**. The teacher uses the key components of the lesson **with an approach** that **centers teacher over student thinking** (e.g., "I do, we do, you do" direct instruction).	The teacher **modifies the lesson by skipping key components** (e.g., the activity launches, activity syntheses, or the lesson synthesis), and **prevents students from meeting the lesson learning goals.** The teacher **fluctuates between centering teacher and student thinking** (e.g., direct instruction to problem-based instruction and back).	The teacher **uses all of the key components** of IM's **problem-based design structure and approach.** The teacher **may make accommodations** to **ensure students meet** the lesson learning goals.	The teacher **orchestrates all** of the key components of IM's problem-based design structure and approach, **ensuring that all students have access and student thinking drives learning**.
	Reflection Notes	Note: time savers may have to happen			

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C1.3 Use of Instructional Routines	*The teacher facilitates the Instructional Routines embedded in the lesson as intended (Notice and Wonder, Math Talk, Which One Doesn't Belong?, Card Sort, Poll the Class, Take Turns)*.	The teacher **uses an alternative approach or structure than the indicated instructional routine** (e.g., pre-teaches or demonstrates strategies using the same questions or task statements).	The teacher **uses the instructional routines but makes modifications that impact access, reduce rigor, or are inconsistent with the goal and design.** OR The teacher **uses only select routines** within a lesson (e.g., skips a Notice and Wonder that is embedded in an activity launch).	The teacher **facilitates all embedded instructional routines consistent with the goal and design** (e.g., structured discussion, built-in think time, honors all responses). The teacher may **adapt the routine based on student dispositions**, while maintaining student access to grade-level mathematics.	The teacher facilitates all embedded instructional routines consistent with the goal and design, adapting as is appropriate. The teacher leverages familiar elements or structures of the routines throughout the lesson to facilitate access and enhance discourse (e.g, notices when students may benefit from additional opportunities to "Notice and Wonder" about a context, or "Turn and Talk" to a partner about a question or prompt).
Reflection Notes					

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C1.4 Use of Math Language Routines	*The teacher facilitates suggested Math Language Routines (MLRs) as intended (MLR1: Stronger and Clearer Each Time; MLR2: Collect and Display; MLR3: Clarify, Critique, Correct; MLR4: Info Gap; MLR5: Co-Craft Questions; MLR6: Three Reads; MLR7: Compare and Connect; MLR8: Discussion Supports).*	The teacher **attempts the MLR, but deviates from the intended structure or focus on language** (e.g., pre-teaches instead of Three Reads).	The teacher **uses the MLR to advance language development**, but **makes modifications that impact access, reduce rigor, or are inconsistent with the goal and design.**	The teacher **facilitates** an MLR to advance language development **consistent with the goal and design**. The teacher may **adapt the MLR in response to students' evolving competencies and stage of language development while maintaining access to grade-level mathematics.**	The teacher facilitates an MLR to advance language development consistent with the goal and design. The teacher adapts the MLR in response to students' evolving competencies and stage of language development while maintaining access to grade-level mathematics. The teacher **creatively and strategically embeds relevant MLRs into the lesson, at the right time.**
	Reflection Notes				

C2. Lesson Facilitation

The teacher cultivates a positive, inclusive, and equitable learning environment, launches activities, questions, engages students in meaningful discussion, monitors and values student thinking, and synthesizes learning.

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C2.1 Cultivating a Positive and Inclusive Classroom Community	*The teacher creates a learning environment that fosters a sense of belonging for every student regardless of background or circumstance. The teacher demonstrates belief that all students can and will learn.*	The teacher **provides opportunities for students to participate** but may not have strategies to elicit meaningful contributions from all students (e.g., lack of wait time, hearing only from eager volunteers).	The teacher **communicates expectations that all students participate in the learning community**. The teacher may **experiment with strategies to elicit more contributions from students** and build a community (e.g., use of a variety of strategies to call on students, or use of random call outs).	The teacher **maintains a caring and encouraging presence** to engage all students in the community. The teacher **demonstrates belief that all students can and will learn by calling on a variety of students throughout the classroom** (e.g. uses a consistent approach to include students, monitors who has been called on, intentionally includes English learners and students with disabilities).	The teacher maintains a caring and authoritative presence to engage all students in the community. The teacher demonstrates belief that all students can and will learn by calling on a variety of students throughout the classroom, **and gives appropriate wait time for all students to share their thinking.**
Reflection Notes					

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C2.2 Equitable Access to Meaningful Learning	*The teacher ensures all students have equitable access to meaningful learning by optimizing student time-on-task and embedding structures that capitalize on multiple means of engagement, representation, and action and expression in the lesson (Universal Design for Learning Guidelines).*	The teacher may inhibit equitable access to meaningful learning by spending **too much time with individual students, or using learning structures that limit student time-on-task** (e.g., excessive downtime for students who have completed the activity or need additional support). The teacher **may modify or replace activities** in a manner that detracts from grade-level focus.	The teacher uses structures that limit student access to meaningful learning (e.g., **requires excessive class time** to transition students from one activity to another). The teacher uses scaffolding that **reduces the cognitive demand of the activity in a way that no longer meets the learning goals** (e.g., suggests specific approaches for problem-solving, assigns one problem at a time within a problem set, or replaces the values in the problem to make it easier).	The teacher uses structures that support **students' access to meaningful learning** (e.g., **gives clear directions to transition students from activity to activity,** ensures adequate levels of student time-on-task). The teacher **maintains the cognitive demand of the activities** and ensures that **students have access** by using recommendations for ELs and SWDs.	The teacher uses structures that support student access to meaningful learning (e.g., gives clear directions to **flexibly transition students** from activity to activity, **maximizes time-on-task for all students)**. The teacher maintains the cognitive demand of the activities and ensures that **all students have access by embedding a variety of structures that support multiple means of engagement, representation, and action and expression.**
	Reflection Notes				

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C2.3 Launching Activities	*The teacher effectively launches each activity, ensuring students understand the context (as appropriate) and what the problem is asking them to do.*	When launching the activity, **the teacher tells the students how to do the problem** instead of allowing students to figure out how to solve the problem. OR The teacher may ask students to **immediately start working on an activity** without setting up students to successfully work on the problem according to lesson prompts.	The teacher poses **some of the prompts from the activity launches to students** but may ignore suggestions in the launch for grouping students.	The teacher chooses and **poses suggested prompts** from the activity launches **that are appropriate for what students need** to understand the context and what the problem is asking them to do. **The teacher groups students in alignment with the intention of the activities.**	The teacher **ensures all students understand the context and what the problem is asking them to do**, integrating additional structures or support (e.g., Notice and Wonder, an MLR, UDL strategies) as needed.
	Reflection Notes				

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C2.4 Engaging Students in Meaningful Small-Group Discussions	*The teacher uses structures and routines to engage students in small-group discussions, and holds students accountable to share (verbally or nonverbally) mathematical ideas relevant to the learning goals for the activity/lesson.*	The **teacher does most of the talking in the classroom.** The teacher may invite students to work with others, but **does not provide prompts or guidance to structure discussions** (e.g., use of routines to guide the who, what, when, how, of discussion).	The teacher **embeds some opportunities** for students to engage in small-group discussions. The teacher may **experiment with different structures to invite all students to participate** and share their mathematical ideas in pairs or small groups.	The teacher uses **formal classroom structures and routines** (e.g., quiet think time, partner discussion, Think Pair Share) to engage students in small-group discussions. The teacher **clarifies expectations for discussions to ensure** that all students' ideas are shared and considered.	The teacher uses formal classroom structures and routines to engage students in pair and small-group discussions. The teacher clarifies expectations for discussions to ensure that all students' ideas are shared and considered). The teacher **invites students to reflect on their participation** (e.g., roles, contributions), **the quality of their discussions, and the impact on their learning**.
	Reflection Notes				

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C2.5 Teacher Questioning	*The teacher uses a variety of questions while students are working and during whole-class discussion to assess their mathematical ideas and advance their mathematical thinking toward the learning goal.*	The teacher asks **mostly closed questions that recall definitions, procedures, or one-word answers,** rather than open questions that reveal student ideas or thinking.	The teacher may experiment with **using open-ended questions**. The questions may be **unrelated to the learning goal, or difficult for students to respond to** because they are confusing or there is a lack of wait time. The teacher **poses some of the suggested questions from the curriculum, but may modify them to reduce their intended rigor.**	The teacher **uses open-ended questions** (available in the curriculum) **to assess mathematical ideas** and **advance student thinking** toward the learning goal throughout the lesson. **Students have time to consider and respond to questions.**	The teacher **uses student responses** and open-ended questions (available in the curriculum) **to assess, probe for deeper understanding, and advance student thinking** toward the learning goal throughout the lesson. Students have time to consider and respond to questions.
	Reflection Notes				

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C2.6 Valuing Student Thinking	*The teacher cultivates a community of learners where making thinking visible is both expected and valued.*	The teacher **focuses on final answers over making thinking visible, or may be evaluative** (e.g., judges student contributions in a way that inhibits student willingness to share thinking, praises only students with correct answers).	The teacher **experiments with making thinking visible, but feedback is evaluative** in nature (e.g., asks students to show their work but may focus the conversation on final answers).	The teacher **emphasizes making thinking visible over a final answer and the nature of discussions is non-evaluative** (e.g., invites students to share both incomplete and correct answers, does not judge student contributions in a way that inhibits student willingness to share their thinking). The teacher provides **opportunities for students to listen to and respond to each other's thinking.**	The teacher **actively affirms student mathematical competence (e.g., celebrates risk-taking, elaborates on important ideas in incorrect work, values incomplete ideas or solutions, cites student ideas, prompts students to share what they heard and valued in another student's work).** Students listen to, respond to, and value each other's thinking, including incomplete responses.
	Reflection Notes				

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C2.7 Monitoring Student Thinking to Structure Discussions	*The teacher monitors student thinking and communication (e.g., listens, asks questions, takes notes, takes photos) to select students to share in a meaningful sequence.*	As students work, the teacher **monitors to make sure students are on task**.	The teacher **monitors students to listen to and learn about student thinking.** They may take notes, offer comments, or ask questions. The teacher prioritizes **responding to individuals or small groups** rather than learning about student thinking across the entire class.	The teacher **strategically selects ideas or strategies** for students to **share in a meaningful sequence**.	The teacher's strategic selection of ideas or strategies is **equity-driven and inclusive to ensure all students share with the whole class over time**.
	Reflection Notes				

Indicator	Descriptor	Awareness	Experimenting	Implementing	Integrating
C2.8 Facilitating Synthesis of Mathematical Ideas	*The teacher uses the suggested prompts from the activity and lesson syntheses to help students reach the learning goals and connects the students' mathematical thinking or strategies to the learning goals.*	The teacher **summarizes the content** from the lesson for students **without incorporating or making connections to students' mathematical ideas**.	The teacher chooses and poses **some of the prompts from the activity and lesson syntheses to students.** The teacher **asks students to share answers or solutions** to the activities instead of asking students to share thinking or strategies.	The teacher chooses and **poses suggested prompts** from the activity and lesson syntheses **that are appropriate for what students need to reach the learning goals for the lesson.** The teacher **asks students to share their strategies or thinking and connects them to the learning goals.**	The teacher poses suggested prompts from the activity and lesson syntheses to students, asks students to share their strategies or thinking, **and orchestrates the discussion based on the learning goals.** The teacher connects **student ideas and questions** using the prompts from the curriculum.
Reflection Notes					

C3. Student Learning Behaviors

Students demonstrate engagement and belonging to the learning community via effective independent and collaborative problem-solving, communication of mathematical ideas, persistence, and self-efficacy.

Indicator	Descriptor	Receiving	Reacting	Interacting	Belonging
C3.1 Independent Problem-Solving	*When assigned independent activities, most students engage in problem-solving and make their thinking visible.*	When assigned independent activities, most students **engage in unrelated activities, or wait for the teacher to share the answers**.	When assigned independent activities, most students **need teacher reminders or support** to engage in the activity.	When assigned independent activities, most students **engage in the activity, ask clarifying questions as needed and require little to no reminders or teacher support.**	When assigned independent activities, most students **take initiative to make their thinking visible, so that others can clearly understand their work.**
	Reflection Notes				

Indicator	Descriptor	Receiving	Reacting	Interacting	Belonging
C3.2 Collaborative Problem-Solving	*When assigned collaborative work activities, students listen to each other and share their thinking throughout all stages of the problem-solving process.*	When assigned collaborative activities (e.g., in pairs or small groups), students **elect to work independently.** OR **Students let other students take over** the work and the thinking.	When assigned collaborative activities, **students listen to other students' solutions or ideas** and/or share their own solutions or ideas (e.g., "I got 7, what did you get?"). Students **may share** their thinking with their group **when prompted by the teacher.**	When assigned collaborative activities, students participate in **collaborative problem solving** (i.e., students talk about each other's thinking, not just their own). Students **share their thinking with their group**, and may ask the teacher for help when the group has a question rather than only when an individual has a question.	When assigned collaborative activities, students participate in collaborative problem solving (i.e., students talk about each other's thinking, not just their own), **make connections between their own strategy and others', and integrate strategies to create a group solution to a problem.** **Students** share their thinking **throughout multiple stages of the problem-solving process** (not just sharing solutions).
	Reflection Notes				

Indicator	Descriptor	Receiving	Reacting	Interacting	Belonging
C3.3 Communication of Mathematical Ideas	*The students clearly communicate their mathematical ideas, both verbally or in written form.*	Students respond to verbal or written questions using **short answer responses with little or no explanation, even** when prompted by the teacher.	**Students briefly explain their thinking, verbally or in writing,** when prompted by the teacher.	Students **fully explain their reasoning, in small-group and whole-class settings with minimal prompts from the teacher.**	Students fully explain their reasoning in small-group and whole-class settings, **reflect on the quality and content of their explanations, and make revisions based on new understandings and feedback.**
	Reflection Notes				

Indicator	Descriptor	Receiving	Reacting	Interacting	Belonging
C3.4 Agency and Persistence	*The students know that confusion can lead to understanding, ask questions of each other, and help each other without just giving away an answer during times of difficulty, challenge, or error.*	Students **wait for help** or **do not appear to ask for help** during times of difficulty, challenge, or error.	Students **ask questions of the teacher** during times of difficulty, challenge, or error.	Students **continue working, try again, and persevere** during times of difficulty, challenge, or error. Students **may ask each other** for help when they are confused or stuck.	Students **revise their thinking and their written work includes revised explanations, added detail for making thinking visible, and justifications** after times of difficulty, challenge, or error. Students listen and help each other think through problems, **without giving away solutions**.
	Reflection Notes				