

WEBINAR



Building Effective Math Instruction: Professional Learning with Illustrative Mathematics[®]

FREQUENTLY ASKED QUESTIONS

October 29, 2024

- ◆ Academy PL by IM
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webinar

This webinar explores professional learning (PL) that is authored and facilitated by Illustrative Mathematics (IM) with a focus on three areas:

- How PL supports effective curriculum implementation
- The design of IM PL
- PL packages and IM Academy PL events

Not only do IM Certified® distribution partners offer digital access and publish and sell print versions of the IM curricula, but they also explain, sell, and schedule the professional learning (PL) offerings that we design. Our partners can provide support if you're interested in learning about options in the IM Certified® Professional Learning (PL) catalog.

Contact the IM Certified partner through which you access IM Math to purchase and schedule PL.



Note: Kendall Hunt provides support for users of the free digital curriculum on [AccessIM](#).

[IM Academy PL](#) is another option when one or a small number of educators from an organization are seeking PL.

For additional information, contact us at email@illustrativemathematics.org or [Schedule a Call](#) to discuss IM with the IM Client Support Team.

Academy PL by IM

Q: My district is using IM for the first time, so how can I access further training individually if my district doesn't hire trainers?

A: IM Academy synchronous PL would work well for you! Find more information [here](#), including what sessions are currently available. Despite the virtual nature, the experience is interactive and focuses on the same learning goals as on-site sessions. An added benefit is the interaction with other educators from around the country who are also using IM.

Q: Are the fees per session and open to all math teachers at the school or per teacher?

A: For the IM Academy sessions, registration is done on a per-seat (i.e. per-attendee) basis. If you want to pay per session for a school math team, then contact an IM Certified partner to purchase and schedule PL.

Q: Will the Teach and Learn sessions be offered through the IM Academy this year?

A: We scheduled many *Teach and Learn* PL events beginning in the summer and continuing through the end of October 2024. Typically there is a greater demand during this time of the year because the *Teach and Learn* PL is designed to support teachers before they begin teaching with IM Math or have just started teaching with IM Math. So academy-style PL typically does not offer the *Teach and Learn* sessions during the middle of the school year. However, districts and schools can contact an IM Certified partner to purchase and schedule a *Teach and Learn* PL session at a time that works best for their teams.

Q: Can small groups have private IM Academy sessions?

A: If a small group would like a private session, that is when the IM Certified distribution partner can be contacted to purchase and schedule a session delivered just for those participants at the date and time most ideal for them. The IM Academy sessions are already scheduled sessions where you register for an available seat.

Q: How long do participants usually have access to the IM Academy sessions?

A: Our IM Academy provides synchronous PL. The IM Academy sessions are delivered live by an IM Certified facilitator and are not recorded. Participants have access to materials referenced during the sessions, such as planning documents, many of which are located on the IM Resource Hub (soon to be the IM Implementation Hub).

Beliefs and “Buy-in”

Q: Do you have advice for working with teachers who will be implementing IM next year and who do not yet “buy in” to the problem-based approach?

A: During the IM *Teach and Learn* PL sessions—which are recommended to launch the curriculum—facilitators share the beliefs about students, teachers, and teaching and learning mathematics that are a foundation for the IM problem-based approach. However, implementation success increases when teachers and school leaders all share a vision for mathematics teaching and learning, understand its implications for their practice, and recognize why and how adopting IM aligns with and supports that vision. Many schools find it helpful to begin by having a discussion regarding what your district vision is for math teaching and learning. Learn more in the [Develop a Shared Vision for Math Teaching and Learning](#) section from our Getting Started with IM Certified Math guide.

Q: My school won’t be adopting a new math program this year, but I’d like for teachers to begin considering new ways of teaching and learning math the IM way. How can I help teachers understand the shifts in teaching math?

A: The instructional routines are a great place to start with teachers. The routines are bite-sized activities that mirror the problem-based lesson structure and include the instructional practices embedded in the curriculum. During pre-adoption or a preparation phase before adoption, some PL and practice with instructional routines will give teachers a chance to try out some of the routines before implementing IM lessons. The IM Certified PL catalog includes a Preparation Pathway with a session for teachers focused on *Establishing Instructional Routines*. During this PL session, teachers experience instructional routines firsthand and reflect on how the structure encourages deep thinking about mathematical ideas and fosters an inclusive classroom community.

In addition, the IM Certified blog post [Promoting Change: Reflections from the UnboundEd Five-Day Standards Institute™ 2022](#) offers ideas for shifting mindsets, as well as questions to consider when thinking about how curricula can impact equitable teaching practices.

Q: What beliefs need to be in place to support transitioning to problem-based instruction from more traditional instruction?

A: As district/school teams develop a shared vision for mathematics teaching and learning, consider the beliefs that are reflected in the problem-based model of the curricula and in the PL experiences that we design. Transformative changes leading to improved student outcomes are often rooted in reconciling underlying beliefs and behaviors. The IM curriculum is built on the belief that all students can access and learn grade-level mathematics. Systems must support access to grade-level learning through problem-based instruction so that all students can realize their potential. The IM Certified blog post [Elements of Problem-Based Teaching and Learning](#) includes some visuals that we utilize during PL sessions to share our beliefs about students, teachers, and teaching and learning mathematics.

In addition, classroom video footage linked in the blog post provides a 360° virtual reality experience (use the computer mouse to adjust and view the classrooms). Consider how current practices, challenges, and existing beliefs in your district/school relate to IM's beliefs, instructional model, and the following guiding principles in IM PL:

1. Coherence with curriculum is key.
2. Educators must attend to equity for all.
3. Learning is social and active.
4. Complex skills develop and deepen over time.

PL for Planning Implementation

Q: What professional learning support is available for pre-adoption of the curricula for leaders in planning for implementation?

A: District support and PL for school leaders will enhance their understanding of their role in the implementation process—alignment to vision, what to expect, how to support teacher learning, school conditions, etc. The IM Certified Professional Learning catalog includes a Preparation Pathway with a session for leaders focused on *Leading IM Implementation PL*. In addition, the IM Certified blog post [Beyond Curriculum Adoption: A Vision of the IM Classroom](#) describes the four elements needed to support teachers, schools, and districts with instructional shifts that promote access and equity for all students.

Q: What guidance might IM provide for mapping out a professional learning plan to support curriculum implementation?

A: After the decision to adopt the IM curriculum, the [Getting Started with IM Certified Math](#) webpage offers guidance for planning PL as well as five other important areas. IM PL focuses on understanding the problem-based lesson structure, key instructional routines and curriculum features, supporting access and challenge for all students, teacher agency, and curriculum coherence. The [Create a Plan for Ongoing Professional Learning](#) section from our Getting Started with IM Certified Math guide offers additional information about our recommendations and the offerings in our PL catalog. The Getting Started guidance suggests an iterative process of planning and reflection that also includes attention to other key actions for system-alignment:

- Align Support Structures and Resources to IM
- Establish a Purpose and Provide Time for Collaborative Learning
- Align Classroom Observation Feedback to IM

In addition, IM's redesigned [Implementation Reflection Tool](#) (IRT) is a powerful, non-evaluative resource intended to shape the way schools adopt and implement IM Certified® Math.

Q: What do you recommend if a school has been using IM for some time (with or without PL), and classrooms have broad differences in implementation?

A: Teachers are often at varying stages of implementation. A guiding principle is to cultivate community and demonstrate curiosity about and trust in student and teacher thinking. Consider an approach to empower teachers and honor their expertise while strategically guiding them toward a refined understanding of curricular components. For example, you might invite teachers to visit each other's classrooms. Consider asking, "As you observe IM in action in classrooms, what are you curious about? What is an area you would like to focus on this year in your classroom practice?" Use that data to involve teachers in the decision-making process for creating a PL plan that includes IM PL. For example, you may want to address concerns such as pacing and planning or the consistent use of Math Language Routines to open access for learners in diverse groups.

Many options for PL may be a good fit. If you have an influx of new teachers, IM Academy sessions would be an option for them to experience the *Teach and Learn* PL, designed to prepare educators to navigate a problem-based curriculum focused on student thinking.

Other modules focus on different areas of practice, such as exploring teacher moves to open access for all learners. These include:

- Math Language Routines—designed specifically to simultaneously support students' learning of mathematical practices, content, and language
- Universal Design for Learning—for enhanced access for students with disabilities

IM's overarching design structure—Invitation-Deep Study-Consolidating and Applying—may be an area of focus and teacher moves to support math discourse. For example, *Leveraging the Problem-Based Lesson Structure* PL addresses common concerns and challenges within the problem-based teaching and learning cycle. During this session, teachers experience the teaching and learning cycle by reflecting on video footage of an actual classroom. Teachers consider the impact of teacher moves on student learning and participation.

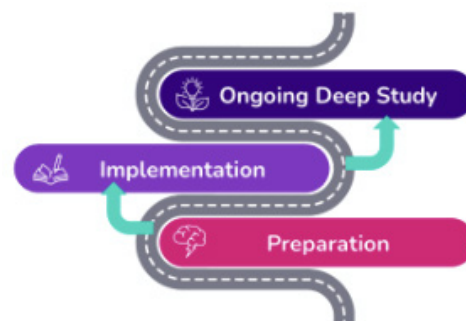
Another resource is the [Implementation Reflection Tool Section C](#). For example, use IRT Section C3 to reflect on student behaviors that teachers observed. Then choose one of the four areas as a focus: C3.1 Independent Problem Solving, C3.2 Collaborative Problem Solving, C3.3 Communication of Mathematical Ideas, or C3.4 Agency and Persistence. Next, use the rubric to determine possible next steps to shift student behaviors from receiving to reacting, or reacting to interacting.

PL Structure

Q: What PL does IM offer for teachers at various stages of curriculum adoption and implementation?

A: The IM team designs PL to align with educators' progression of learning as they prepare for and then implement IM Math. Therefore, the structure of the IM Certified PL catalog includes multiple learning pathways for preparation, implementation support, and ongoing deep study over many years for teachers and their leaders.

- **Preparation Pathways:** These PL offerings set the stage for problem-based instruction and making student thinking visible. The Teaching Pathway includes offerings such as the *Establishing Instructional Routines* PL and *Valuing Student Thinking* PL. The Leading IM Implementation Pathway includes the *Curriculum Overview for School Leaders* PL and *Leading IM Math Implementation* PL as paired offerings.



- **Implementation Pathways:** The IM team recommends the *Teach and Learn* PL to launch implementation. To support teachers as they deepen their understanding and craftsmanship, follow up with multiple PL options integrated with local support through facilitated teacher collaboration and aligned feedback. In anticipation of common challenges and concerns with transitioning to a problem-based approach, PL offerings include:

- *Leveraging the Problem-Based Lesson Structure*
- *Fostering Synthesis through Discourse*
- *Using Learning Goals to Inform Instruction*
- *Using Cool-Downs to Plan Instruction*

- **Ongoing Deep Study Pathways:** PL topics for multiple years of ongoing study provide opportunities for continued learning for teachers and resources for local leaders. Options include IM-facilitated workshops introducing a year-long course of study and IM-facilitated PLC sessions with debriefs and resources for follow-up by local leaders. To support teacher agency in responding to student thinking, the selection of PL topics includes:

- planning using formative assessment
- planning to increase access by a wide range of learners
- grounding discourse in the Five Practices for Orchestrating Discussion

Q: How are IM's professional learning sessions structured?

A: Our professional learning is structured much like learning in an IM classroom—social, collaborative, and cyclical. With the guidance of an expert facilitator, participants experience the learning through individual reflection, conversations with a partner or small group, and syntheses in whole-group discussion. Sessions move through this cycle as participants and facilitators collaborate to do math, reflect on our practice, and cultivate a positive and

inclusive learning community. Teachers are encouraged to apply takeaways from PL to their classroom, such as a prompt to consider opportunities to cultivate community and demonstrate curiosity about and trust in student thinking.

Expert-led sessions, available both on-site and virtually, guide teachers and school leaders through meaningful pedagogical shifts that lead to increased classroom engagement and consistent student learning growth.

- Virtual options include the [IM Academy](#) and [PL Partner Academies](#) with individual registration.
- Both virtual and on-site PL can be purchased and scheduled for your organization through an IM Certified curriculum distribution partner.

Q: How does IM address Mathematical Knowledge for Teaching (MKT)?

A: Mathematical Knowledge for Teaching (MKT) is the specialized pedagogical content knowledge that teachers need to understand, respond to, and teach students as they learn mathematical concepts. Components of the IM Math curricula and the structure of IM PL intertwine threads of pedagogical content knowledge throughout.

The structure of PL sessions often provides opportunities for participants to do the math in an activity themselves, then experience an activity from a student's perspective, and finally, look at the teaching materials and consider teacher moves (questions to ask, connections to make between student responses, etc.) that make the important mathematical ideas explicit. The PL design includes structures to consider the math content as a learner and teacher and reflect on practice with peers.

IM Math curricular materials are often described as “educative” because of the explanations of the coherent mathematical progressions and the support provided for teachers in lesson and assessment guidance, preparing them to respond to student thinking. These mathematical progressions, advancing student thinking, and responding to student thinking components are especially helpful for early-career teachers, helping them to deepen their understanding of math content and pedagogy. IM® 6–8 Math also includes the progression of disciplinary language in each unit as a teacher resource. In addition, pedagogical content knowledge is one category for the reflection questions for teachers that are embedded in the curricula.

During the Understanding *Math Content Progressions Across Grades K–5* PL module, teachers learn a process to help them understand the mathematical progression of ideas in an upcoming unit through the use of unit narratives and assessments. They will use these understandings to support them in planning with the mathematical goal in mind. Unit Overview 6–12 PL modules support teachers with planning and pacing, as teachers recognize where different skills and concepts fit into the mathematical progression. An important part of IM PL is doing math together and anticipating how students might respond to selected activities.

In addition, the IM team offers insights into the mathematical progressions and choice of representations in the curricula, such as in these resources:

- [Reading Graphs is a Complex Skill](#)
- [Fraction division part I: How do you know when it is division?](#)
- [Representing Subtraction of Signed Numbers: Can You Spot the Difference?](#)
- [What is the Time? It Depends...](#)
- [Fluency ebook](#)

PL for Math Coaches

Q: What support from IM is available for math leaders and coaches in integrating PL content with collaboration and coaching?

A: IM offers PL for math leaders and math coaches, Professional Learning Community (PLC) modules for teachers, as well as some other asynchronous resources to use as they support teacher learning.

Professional Learning Support:

In addition to PL for teachers, the IM Certified PL catalog includes options for math leaders and coaches to engage in PL around our problem-based design. The *Coaching Problem-Based Teaching and Learning* PL provides coaches with a deeper understanding of the structures and beliefs, along with the core components and practices, embedded in the IM Math curriculum, supplemental materials, and professional learning for teachers. For example, to learn about Math Language Routines (MLRs), IM offers PL for teachers that can be paired with additional PL for coaches, where they consider the coach role and ways to continue to support teacher learning about the MLRs. The coaching series has eight parts and can be scheduled over four days (two modules per day) or eight half-days throughout the year.

IM's Unit Planning Guides (UPGs) and *Unit Planning Guide Launch* PL were purposefully designed to support leaders of collaborative unit planning with teachers. The Unit Planning Guides are asynchronous documents that coaches and PLC leaders can use to guide teachers through the initial exposure and planning for a new unit. The UPGs include both teacher-facing and facilitator-facing guides. [Unit 1 sample materials](#) are available with options to purchase the UPGs (asynchronous resources) and/or the *Unit Planning Guide Launch* PL.

In IM PLC modules, teachers collaborate and apply their learning with their grade-level colleagues. They plan for an upcoming lesson based on a PLC topic or problem of practice, with local math leaders providing follow-up support after the session.

Freely-available resources for coaches and math leaders:

- The on-demand webinar [Inspiring Collective Agency through Responsive Coaching](#) offers insights for successful implementation through responsive coaching. Leaders at the district and school levels shared their approach to empower teachers and honor their expertise, while strategically guiding them toward a refined understanding of curricular components.
- The IM Certified blog post [Supporting Teachers During Implementation of Illustrative Mathematics: Big Ideas For Coaches and Teacher Leaders](#) provides guidance on preparing for the first year of IM K–12 Math implementation.
- The [Implementation Reflection Tool Section B](#) focuses on collaborative planning with three sections: B1 Collaboration, B2 Unit Planning, and B3 Lesson Planning. With productive habits of effective individual and team planning and learning, teachers are better equipped to identify the key learning goals of each lesson, utilize pacing guides, and enact the lessons in a way that leverages students' strengths. Consider inviting each PLC to choose an area that they are curious about and want to focus on during the next quarter of the school year. For example, if a PLC group selects [B1.4 Evidence of Student Learning](#), they might collectively examine student work, use the data to identify an instructional practice they'd like to refine, and from there work towards collaboratively implementing the practice. For a next step, consider [B1.6 Peer Observation](#): Teachers observe each other's classrooms and provide feedback aligned to PLC goals. After establishing feedback norms, consider when to introduce and prioritize using this tool (specific parts or all) for teacher self-assessment or classroom observation. When using the tool to self-assess, teachers may select a few indicators to focus on in alignment with their professional learning goals, or more broadly use the tool to track trends in their instruction over time.

Q: If I've participated in the coaching series and have followed IM's ongoing blogs and webinars, what other PL is available?

A: With the revision of the IMplementation Reflection Tool (IRT), two new offerings designed to support coaches and leaders in using the IRT in their contexts will be added to the IM PL catalog starting January 2025:

- **Getting Ready for Classroom Observation with the IM Implementation Reflection Tool.** In this session, school leaders will use video to focus on student learning behaviors in a problem-based classroom, make connections between teacher moves and student learning behaviors, and reflect on how to support teaching in a problem-based classroom, grounded in the IM Implementation Reflection Tool.
- **Calibrating for Classroom Observation with the IM Implementation Reflection Tool.** In this session, school leaders will use classroom video to connect evidence of teacher and student moves to the descriptors for several indicators of the classroom observation section of the IM Implementation Reflection Tool. They will then calibrate with colleagues on which stage of implementation the evidence describes.

Pricing

Q: Are the fees per teacher or per session? Will a session be open to all the math teachers at the school?

A: When you purchase and schedule PL for your organization through one of our IM Certified partners, the sessions are at a flat rate, with a set maximum number of participants. By design, the IM Academy sessions have individual registration with pricing on a per-seat (per-attendee) basis.

Q: How do I get a PL catalog with price quotes for the various sessions?

A: Contact your IM Certified curriculum distribution partner. Someone at your school/district should already be in contact with the partner for curriculum access, and that partner contact can help with purchasing and scheduling PL. If you are accessing the curriculum through one of our open access sites such as [AccessIM](#) or <https://im.kendallhunt.com>, then you can contact [Kendall Hunt](#).

Supports for Lesson Planning

Q: Is there a specific lesson plan template that IM recommends using when planning a lesson?

A: In IM PL, we share a template for lesson internalization that is helpful when preparing to facilitate an IM lesson with students. A link to make a copy of the [IM Planning a Lesson Template](#) is included in the Getting Started with IM Certified Math guide, under the [Part 3: Provide Expectations for Collaborative Learning](#) guidance.

In addition, the IM Certified blog post [IM Curriculum Provides Everything but the Kitchen Sink Needed for Lesson Planning](#) may offer further insights for lesson planning.

The IMplementation Reflection Tool (IRT) is intended to be an adaptable and ongoing tool for schools to use throughout their implementation journey. [IRT Section B3](#) focuses on lesson planning and includes six indicators, along with descriptors, to identify key changes in the progression of practice, moving from organizing to implementing.

Teaching Practices and Supporting PL

Q: What PL offerings focus on understanding and using the instructional routines in the curriculum?

A: *Establishing Instructional Routines* is one of our PL offerings that focuses on routines, but there are several other offerings as well, each with a specific intent. While *Establishing Instructional Routines* introduces educators to the structure and purpose of routines, *Eliciting Student Thinking with Instructional Routines* digs a little deeper to analyze how the routines invite students into the mathematics, support the learning goals, and set a foundation for

subsequent activities. We also have PL offerings, like *Enhancing Access with Mathematical Language Routines*, that provide opportunities for educators to learn about routines designed to simultaneously support students' learning of mathematical practices, content, and language.

These related IM Certified blog posts might be helpful to learn about instructional routines:

- [Think Pair Share](#)
- [What is an instructional routine?](#)
- [The Power of Noticing and Wondering](#)
- [Math Language Routines: Discourse with a Purpose](#)
- [Using Instructional Routines to Inspire Deep Thinking](#)

Q: How can teachers learn more about using the 5 Practices for Orchestrating Productive Math Discussions?

A: The IM curriculum incorporates the framework presented in *5 Practices for Orchestrating Productive Mathematical Discussions* (Smith & Stein, 2011). Promoting productive and meaningful conversations between students and teachers is essential to success in a problem-based classroom. In IM Certified PL, teachers rehearse and reflect on enacting the 5 Practices during curriculum workshops and in Professional Learning Communities (PLCs).

In addition, IM lessons are a resource for teachers to learn about using the 5 Practices to foster math discourse. The 5 Practices are: anticipating, monitoring, selecting, sequencing, and making connections between students' responses. All IM lessons support the practices of anticipating, monitoring, and selecting students' work to share during whole-group discussions. In lessons where students make connections between representations, strategies, concepts, and procedures, there's additional support for the practices of sequencing and connecting as well. Each of these lessons are tagged so that these opportunities are easily identifiable. The IM Resource Hub includes a list of all lessons that are tagged with the 5 Practices routines as well as the other instructional routines in each course for IM® K–12 Math and the new version IM® v.360 for K–8.

- [IM K–12 Math K–5 Routines List](#) and [IM 360 K–5 Routines List](#)
- [IM K–12 Math 6–8 Routines List](#) and [IM 360 6–8 Routines List](#)
- [IM K–12 Math 9–12 Routines List](#)

These related IM Certified blog posts might be helpful to learn about the 5 Practices instructional routine:

- [Using the 5 Practices with Instructional Routines](#)
- [The 5 Practices: Looking at Differentiation Through a New Lens](#)

Q: So far, I feel like I am able to cover only one activity, but never the entire lesson. What recommendations do you have for teachers to successfully complete a whole lesson? We're finding that students are finishing activities at significantly different paces. How can we adjust for this and still get to synthesis for the whole group in a timely way?

A: Be intentional about the learning goals for the lesson and study how each activity builds on the previous activity toward the learning goal. You may have to make in-the-moment decisions to stay on pace, and you can make better decisions with the learning goals in mind. For example, not every student needs to finish every problem in an activity before you synthesize. Based on the learning goals, you may choose to target specific problems within an activity that ALL students should complete as an entry point into the synthesis conversation. In addition, allowing for rough draft thinking also provides space for students to contribute and for teachers to get a window into student thinking. Use a timer, especially for the Instructional Routines. When synthesizing an activity, not every student needs to share ideas. Rather, select the students who will move the mathematical and community building goals forward.

In addition, utilize the Math Language Routines in the curriculum. An extra 5–10 minutes of a routine can save you time in the long run because students will have a better understanding about what the activity involves. Learn more about Math Language Routines (MLRs) in these IM Certified blog posts:

- [Math Language Routines: Discourse with a Purpose](#)
- [Unlocking Learners' Thinking Using Mathematical Language Routines](#)
- [Tackling Wordy Problems: How the Three Reads Math Language Routine Supports Access for All Learners](#)

Suggested PL sessions to support planning and pacing include the *Using Learning Goals to Inform Instruction* PL and the *Leveraging the Problem-Based Lesson Structure* PL.

In addition, explore the student's perspective in transitioning to problem-based teaching and learning in the following IM Certified blog post series:

- [How Do Students Perceive Problem-Based Learning?](#)
- [Inviting Students to the Mathematics](#)
- [Concrete Representations that Give Students a Way to Get Started](#)
- [Explicit Classroom Norms to Teach Kids How to Learn From Solving Problems](#)

Q: How does IM provide instruction and challenge for all students in one classroom, including those who require more support and those who require significant challenge and enrichment?

A: The IM mission is to create a world where all learners know, use, and enjoy math, so the curriculum design provides multiple entry points for a wide range of learners. Students are encouraged to use their current understanding of math, their lived experiences, and the world around them as resources for problem solving. By starting with what students already know, teachers invite all students to contribute to mathematical learning. They do this by centering student thinking and being responsive as students develop conceptual understanding. The overarching design structure begins with this invitation, is followed by deep study, and then culminates in consolidating and applying the learning.

For students who need more support, teachers have many resources to enhance access, including Math Language Routines and Universal Design for Learning principles. The pre-unit problems in K–5 Practice Problems and 6–12 Check Your Readiness are tools for uncovering unfinished learning and can be followed by just-in-time learning before upcoming lessons. The teacher assessment narratives often offer guidance for supporting learning still in development after Checkpoint, Mid-Unit, and End-of-Unit Assessments. In K–5, the math centers provide infinite practice opportunities. For each lesson, the Cool-down serves as a daily formative assessment and provides guidance for Next Day Supports.

The curricula also include some built-in extensions, such as the K–5 Section Practice Problem Explorations, the 6–12 Are You Ready For More Activities in each lesson, and the 9–12 Modeling Prompts. The Modeling Prompts are designed for use by all learners, but they contain multiple versions of the task statements that can be used to extend learning for students who are looking for additional challenge.

PL recommendations include:

- *Using Learning Goals to Inform Instruction*
- *Fostering Student Thinking through Discourse*
- *Enhancing Access with Universal Design for Learning*
- *Enhancing Access with Math Language Routines*

These related IM Certified blog posts might be helpful to learn more about supporting the learning of all students:

- [*Fostering Teaching Practices to Nurture Opportunities for Students to Shine*](#)
- [*Visualizing IM K–5 Math™ within a Dream Team of Supports*](#)
- [*Visualizing IM K–5 Math in Specialized Academic Settings: Part 2 and Part 3*](#)

These related IM Certified blog posts explain how to view student work through a strength-based lens and use it to inform instruction:

- [*What is right about wrong answers?*](#)
- [*Planning to Use Pre-Unit Assessments*](#)
- [*Reinforcing Conceptual Understanding after Assessments*](#)

Q: We are implementing IM this school year. Our first-grade classrooms are struggling with implementing whole-group instruction from previously teaching in small groups. Do you have any suggestions for supporting this transition?

A: Understanding the intended structures within the curriculum design and how they reflect beliefs about student learning may be helpful. Based on that foundational understanding, next steps may include reframing expectations for how students and the teacher interact in a problem-based classroom.

First, consider unpacking how IM lessons offer opportunities for a variety of classroom interactions.

“Problem-based instruction means believing all students can solve problems on their own and giving them a chance to try. The curriculum we write is designed to support problem-based instruction. Each lesson is built around a set of activities that students can work on by themselves or in groups, starting with a warm-up that activates relevant prior learning. The activities are designed to be amenable to different approaches that different students might bring to the work. Because not all students will be ready just to jump right in, each activity has a launch which is designed to help them understand the problem without giving away the punchline. Each activity also has a synthesis at the end where the teacher makes sure that each student has learned the mathematics the activity was designed to teach.”

–IM blog post, [What is Problem-based Instruction?](#)

Next, consider reframing the activities as opportunities for students to work with partners and in groups to engage in mathematical discourse. To support this shift, introduce structures for peer collaboration such as [Think, Pair, Share](#). It is important that every student has an opportunity to engage in the grade-level math in each activity in a lesson and to make connections between their strategies, representations, and solutions and those of their grade-level peers. If syntheses are done with small groups of students, some students are denied opportunities to participate in certain conversations about important mathematical ideas. Essentially, they are denied access to “grade-level math.” During the syntheses, students connect different strategies, representations, and solutions to each other and also to the learning goal.

IM lessons consist of multiple activities where students work in different combinations of individual, partner, small groups, and teacher choice. Should teachers using IM never work with small groups of students? That is not IM’s position. While there may be times to use small group instruction, if used exclusively with lessons designed to support problem-based learning, it may result in limiting the student experience. This quote from the [IM Classroom Infographic](#) captures the dynamics of heterogeneous groups of students using the IM curriculum: “The best IM classroom is one where you have students with really different backgrounds in math, or different ways of seeing and thinking, that can come together and create this incredible learning together.” IM is designed to be used with the entire, inclusive classroom, with built-in teaching moves that are responsive to student thinking. Individual students can have their unique needs addressed within the structure of the IM lessons and centers, which include activities with multiple entry points for a wide range of learners. Students benefit from being part of the conversations with their peers during warm-ups and the other math activities in the lesson.

These related IM Certified blog posts might be helpful:

- [The Problem of “Fewer”: Using Centers and the 5 Practices to support students in their production of complex math vocabulary](#)
- [Making IM Centers Work: Joyful Practice, Meaningful Fluency, and Authentic Assessment](#)
- [Centers in Kindergarten: Purposeful Play and Authentic Assessment](#)

Versions of the Curriculum Materials

Q: What is IM v.360?

A: IM v.360 distinguishes the new edition of the IM curriculum launched in 2024 from previous versions. The number “360” is all-encompassing and all-inclusive. Similarly, IM v.360 encompasses coherence within and across K–12 courses and is inclusive in the invitational and collaborative problem-based approach. The IM Certified blog post [Introducing IM 360: Taking Students Around the World of Mathematics](#) describes how IM users’ feedback informed updates for the new version. It also includes a description of new features and sample unit previews

Q: Our school is in the adoption process and we were interested in IM Math. Should we instead look at IM v.360?

A: IM v.360—IM’s most comprehensive curriculum upgrade to date—will have periodic updates during the 2024–25 school year. Contact an IM Certified partner about availability and for guidance on which version is right for your district/school. Currently, three IM Certified curriculum partners—Imagine Learning, Kendall Hunt, and Kiddom—exclusively offer the IM Certified curricula for free or via enhanced teacher and student experiences in digital and print formats.

IM’s free digital curricula can also be accessed as an open education resource:

- IM K–12 Math at im.kendallhunt.com
- IM v.360 at [AccessIM](#)

Q: Would you explain the free online versus the paid versions?

A: The content is the same from all IM Certified partners, with differences in usability features, including a free open education resource (OER) or options to purchase digitally-enhanced learning platforms. If needed, refer to the following for more information about how we work with partners:

- [partner comparison chart](#)
- [free or paid access explanation](#)

Q: We are standards-based. Are there data trackers for each grade level with Checkpoint and End-of-Unit Assessments?

A: Schools that utilize standards-based grading (and those who do not) find IM works well in their setting. Resources for data tracking depends on the grade/course and the partner through which you access the IM Certified Math curricula. For example, kindergarten and grade 1 materials include checklists as the Checkpoint Assessment for each section of a unit. Other grade levels include a section-level monitoring sheet, which are based on the section goals with a checklist format. In addition, IM Certified partners who offer subscription-based, premium access include data reporting as an added usability feature in their digitally-enhanced platforms.

Video

Q: Can you show a demonstration of what an IM classroom is like? Do you have videos of teaching using IM?

A: The IM team is excited to share video of an IM classroom in action in the Observing an IM Classroom section of the [Getting Started with IM Certified Math](#) guide. In addition, the IM Certified blog post [Elements of Problem-Based Teaching and Learning](#) includes some visuals that we utilize during PL sessions. There's also classroom video footage with a 360° virtual reality experience (use the computer mouse to adjust and view the classrooms).

Web Resources

Q: Where can I find additional resources to support implementation?

A: If you haven't visited the [IM website](#) in a while you may have missed a plethora of new, free resources and ways to connect with the IM team.

- Download free ebooks, including the [Fluency ebook](#) and [Stories of Grades K–5 ebook](#)
- Explore [case studies](#)
- View [on-demand webinars](#)
- Access the [IM Certified Blog](#) webpage and submit an e-form to [subscribe](#)
- Get free teacher resources on the [IM Resource Hub](#) (soon to be IMplementation Hub)
- Check out implementation resources released in 2024:
 - [Getting Started with IM Certified Math: A Guide for Instructional Leaders](#)
 - [Reintroducing the IMplementation Reflection Tool](#)