

# Instructional Practices Inventory

# Math



At HMH, our coaching model is learner focused, partner based, and data driven. We are looking forward to partnering with you on your learning journey. Use this inventory to identify practices that are already in place in your classroom and as a guide for areas in which you may want to work with your coach.

## Learning Environment

### TEACHER

- Providing a respectful, safe, and culturally responsive environment in which mistakes are seen as an opportunity to learn
- Structuring the class for independent work, pairs, groups, and whole class in a thoughtful and deliberate way
- Asking high-level questions that both build and reveal new understanding of content and practice
- Making appropriate tools available and encouraging their use

### STUDENT

- Taking an academic risk and relying on their own thinking and the thinking of other students
- Listening to and asking questions of each other to clarify information and respectfully challenge ideas
- Explaining their reasoning; constructing viable arguments and critiquing the reasoning of others
- Communicating using appropriate mathematical language, both orally and in writing
- Working productively in a variety of grouping structures

## Reasoning and Sense-Making

### TEACHER

- Selecting rigorous learning experiences
- Making learning experiences accessible to all students without compromising the rigor in the problem
- Expecting students to justify their reasoning for all answers, whether correct or incorrect
- Selecting learning experiences that represent a balance of conceptual understanding and procedural fluency

### STUDENT

- Persevering in making sense of rigorous problems
- Seeking multiple approaches to solving a problem
- Using multiple representations when solving problems, such as symbols, diagrams, graphs, words, and so on
- Understanding math concepts and using procedures appropriately
- Using appropriate tools strategically, including mental calculations that fit the situation
- Looking closely to discern a pattern or structure

## — **Focus and Coherence** —

### TEACHER

- Understanding the expectation of the standard to be taught and its connection to previous standards; aligning the lesson to grade-level content and process standards
- Differentiating instruction based on student needs
- Selecting problems that provide opportunities for students to contextualize and/or decontextualize
- Selecting problems that provide opportunities for students to apply math to real-world situations

### STUDENT

- Making connections among mathematical understandings and using those understandings to solve problems
- Using math to contextualize and/or decontextualize problems
- Applying the math they know to solve real-world problems

## — **Formative Assessment** —

### TEACHER

- Using data to make instructional decisions based on student needs
- Providing feedback to students and structuring opportunities for students to provide feedback to each other
- Establishing and communicating the learning outcome(s) of the lesson
- Monitoring learning and adjusting teaching during instruction

### STUDENT

- Taking responsibility for their learning by monitoring their progress toward a learning outcome
- Applying teacher and peer feedback to strengthen and deepen learning
- Articulating what one is learning and why