## **Instructional Practice Guide: Mathematics**





**Purpose:** The Instructional Practice Guide articulates the vision for skillful teaching and learning. The guide describes the core instructional practices that contribute to student learning. Purposes include: 1) lesson preparation; 2) reflecting within PLCs on instructional practices contributing to student outcomes; 3) focused professional learning on standards-aligned practice; 4) providing precise feedback/next steps on classroom practice.

### 1. Culture of Learning: Is there a culture of learning and high expectations in this classroom?

Students demonstrate:

- self-management skills by **following behavioral expectations**, classroom directions, and executing **transitions and procedures efficiently**, independently and with peers.
- engagement in the work of the lesson from start to finish; there is a sense of urgency about how time is used and managed.
- evidence of growth mindset (embrace challenges/learn/persist) and self-efficacy (belief in ability to succeed) through interactions with teachers, peers, and course content.
- social awareness skills (i.e. listening, disagreeing respectfully, building on thoughts or arguments, perspective taking, social cues) and cultural awareness through interactions with teachers, peers, and course content.
- openness to the exploration of identity, diversity, justice, and social action to develop an inclusive learning community
- a joy for learning through positive relationships with their teacher and classmates and strong classroom culture.

Planning Notes/Self Reflection/Feedback:

### 2.A. Challenging Content: Does the content of this lesson reflect the shifts required by the CCSS for Mathematics?

- Focus: The lesson focuses on grade level cluster(s) and/or standard(s) at the appropriate level of depth.
- Coherence: The lesson intentionally connects content to appropriate mathematical concepts within and across grades.
- Rigor: The lesson intentionally targets the aspect(s) of rigor (conceptual understanding, procedural skill and fluency, application) called for by the standard(s) being addressed.

Planning Notes/Self Reflection/Feedback:

# **2.B. Challenging Content:** Does this lesson employ instructional practices that allow all students to learn the content of the lesson?

The teacher:

- provides opportunities for students to engage with grade-level problems, mathematical investigations, and/or tasks.
- provides opportunities for students to engage in review, consolidation, and/or practice exercises.
- makes the mathematics of the lesson explicit by using explanations, representations, and/or examples.
- strengthens all students' understanding of the content by sharing a variety of students' representations and/or solution methods.
- deliberately **checks for understanding** throughout the lesson and **adapts** the lesson according to student understanding.
- summarizes the mathematics with references to student work and/or discussion in order to reinforce the focus of the lesson.

Planning Notes/Self Reflection/Feedback:

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### 3. Ownership: Are students responsible for doing the thinking in this classroom through the mathematical practices?

Students:

- have opportunities for productive struggle and demonstrate perseverance in reasoning and solving problems solving in the face of initial difficulty
- share their developing thinking about the content of the lesson.
- elaborate on initial thoughts to explain their thinking.
- engage in academic discourse and ask questions about each other's thinking to clarify, self-assess and/or improve their own
  mathematical understanding and determine next steps to improve learning outcomes.
- justify their conclusions, communicate them to others, and respond to the arguments of others.
- revise initial work, especially their explanations and justifications.
- use precise mathematical language in their explanations and discussions.
- **use appropriate tools,** including technology, strategically when solving a problem.

Planning Notes/Self Reflection/Feedback:

4. Every Student: When students are working to overcome gaps in skill or standards, does the lesson address what students need, not what they already know?

- Frequent monitoring of student progress by both teacher and students (self-efficacy) drives content of intervention so that students get what they need, not what they already know.
- The skills being taught are **aligned to the standards** for the grade or address specific skills that hold students back from doing grade-level work.

Planning Notes/Self Reflection/Feedback:

### 5. Improving Every Day: Are students demonstrating their understanding?

- Questions, tasks, and/or assessments yield data that allow the teacher to assess students' progress toward learning outcomes aligned to grade level standards and allow for lesson adjustments.
- Student responses and work demonstrate that students are on track to achieve stated or implied learning outcomes as identified by various assessment.
- Responses within the classroom are monitored and instruction is adjusted in real time with gradual release

Planning Notes/Self Reflection/Feedback: