

Instructional Practice Guide: Mathematics

Version 3.1 – July 2017



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 PLC/AC's 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**, directions and **execute transitions and procedures efficiently** independently and with peers.
- Students are **engaged in the work of the lesson** from start to finish; there is a **sense of urgency** about how time is used.
- Students exhibit evidence of **growth mindset** (embrace challenges/learn/persist), **self-efficacy** (belief in ability to succeed) and **social awareness** (cultural/diversity value) through interactions with teachers, peers, and course content.
- Students and their teacher demonstrate a **joy for learning** through positive relationships and strong classroom culture.

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|---------|----------|--------|-----|
| Not Yet | Somewhat | Mostly | Yes |
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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.

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|---------|----------|--------|-----|
| Not Yet | Somewhat | Mostly | Yes |
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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**.
- The teacher provides opportunities for students to engage in **review, consolidation, and/or practice** exercises.
- The teacher makes the mathematics of the lesson explicit by using **explanations, representations, and/or examples**.
- The teacher strengthens all students' understanding of the content by sharing a **variety of students' representations and/or solution methods**.
- The teacher deliberately **checks for understanding** throughout the lesson and **adapts** the lesson according to student understanding.
- The teacher **summarizes the mathematics** with references to student work and/or discussion in order to reinforce the focus of the lesson.

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|---------|----------|--------|-----|
| Not Yet | Somewhat | Mostly | Yes |
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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.
- Students **share their developing thinking** about the content of the lesson.
- Students **elaborate on initial thoughts** to explain their thinking.
- Students **talk about and ask questions about each other's thinking** to clarify, self-assess and/or improve their own mathematical understanding, which can lead student(s) to determine next steps to improve learning outcomes.
- Students **justify their conclusions, communicate them to others, and respond to the arguments of others**.
- Students **revise initial work**, especially their explanations and justifications.
- Students **use precise mathematical language** in their explanations and discussions.
- Students **use appropriate tools**, including technology, strategically when solving a problem.

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| Not Yet | Somewhat | Mostly | Yes |
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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.

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| Not Yet | Somewhat | Mostly | Yes | N/A |
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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/goals.

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|---------|----------|--------|-----|
| Not Yet | Somewhat | Mostly | Yes |
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|----------------|--|---------------------|--|
| Teacher | | Grade/Course | |
| School | | | |
| Date | | Time/Period | |

| Teacher Actions | Student Actions |
|--|-----------------|
| <p style="font-size: 48px; opacity: 0.3; transform: rotate(-30deg);">DRAFT</p> | |

Coaching points: