**Instructional Practice Guide for Mathematics**

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| **Purpose:** The Instructional Practice Guide (IPG) for Mathematics describes core instructional practices shown to improve student outcomes and is aligned to the *Kentucky Academic Standards (KAS)*. This IPG supports curriculum-focused:   * Observation-based feedback on classroom practice contributing to student outcomes; * Reflection on instructional practices and shifts; and * Identification of professional learning needed to support standards-aligned practice.   It may be helpful to supplement what is observed with further evidence from artifacts, such as lesson plans, tasks or student work. Although many indicators will be observable during a lesson, some lessons may appropriately focus on a smaller set of objectives, or an observation may occur during only a portion of a lesson. In those cases, some of the tool may be left blank. Finally, districts/schools may choose to stagger their observation focuses as they move through implementation of the local curriculum and high-quality instructional resources (focus on *Culture of Learning* and *Core Action 1* in year one, for example).  **Rating Criteria**  **1: Yes –** All Indicator aspects are fully present whenever appropriate.  **2:** **Mostly**– Most indicator aspects are met most of the time it would be appropriate.  **3: Somewhat** – Some indicator aspects are met some of the time it would be appropriate.  **4: Not Yet**– Indicator aspects are not yet met.  ***Important Note****: For professional learning support with academic standards and aligned practice, please visit* [*kystandards.org*](https://kystandards.org/)*.* |

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| **Date**:  **Observer**:  **Teacher**: | **Grade Level/Course**:  **Lesson Segment(s)**: All / Beginning / Middle / End  **Observation Focus (if applicable)**: |

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| **CULTURE OF LEARNING: There is a culture of learning and high expectations in this classroom.** |

| **Indicators** | **Rating** |
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| 1. Students demonstrate self-management skills by following behavioral expectations, classroom directions and executing transitions and procedures efficiently, independently and with peers. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation:** |
| 1. Students engage in the learning of the lesson from start to finish; there is a sense of urgency about how time is used and managed. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. Students demonstrate evidence of growth mindset (embrace challenges/learn/persist) and self-efficacy (belief in ability to succeed) through interactions with teachers, peers and course content. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. Students demonstrate social skills (i.e., listening, disagreeing respectfully, building on thoughts or arguments, perspective taking, social cues) and cultural awareness through interactions with teachers, peers and content. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. Students and teacher demonstrate an enthusiasm for learning through positive relationships and strong classroom culture that is responsive to student interests, experiences and preferences for learning. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |

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| **CORE ACTION 1: The learning of the lesson reflects the depth and complexity of the *KAS for Mathematics*.** |

| **Indicators** | **Rating** |
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| 1. The goal of the lesson reflects mathematics within the grade-level standards. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. The lesson appropriately connects new content within and across grade levels. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. The lesson intentionally meets the target of the standard (conceptual understanding, procedural skill and fluency, application) called for by the standard(s) being addressed. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |

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| **CORE ACTION 2: The lesson provides all students with opportunities to exhibit Standards for Mathematical Practices while engaging with the learning of the lesson.** |

| **Indicators** | **Rating** |
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| 1. Students take active ownership of the learning as they engage in grade-level tasks and problems. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. Students make sense of problems and persevere in arriving at mathematical understanding through reasoning, strategic use of tools and appropriate scaffolding. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. Students share and explain their thinking around the questions and problems of the lesson beyond just stating answers. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. Students talk and ask questions about each other’s thinking, in order to clarify or improve their own mathematical understanding and to construct viable arguments. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. Students connect their informal language and mathematical ideas to increasingly precise mathematical language and ideas. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. Students use mathematics to model problems that arise in everyday life, analyzing relationships mathematically to draw conclusions. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |

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| **CORE ACTION 3: The teacher employs instructional practices that allow all students to access grade-level learning.** |

| **Indicators** | **Rating** |
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| 1. The teacher identifies and clearly communicates the lesson’s learning goal(s) and success criteria to students and why the learning goal(s) is important. The learning goal(s) and success criteria are revisited throughout the lesson, used by students and teacher to monitor progress and inform next steps. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. The teacher makes the mathematics of the lesson explicit through the use of explanations, representations, tasks and/or examples. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. The teacher strengthens all students’ understanding of the content by strategically sharing students’ representations and/or solution methods and connecting those solutions to the learning goal of the lesson. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. The teacher deliberately checks for understanding to surface misconceptions and adapts the lesson according to student understanding. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |
| 1. The teacher facilitates the summary of the mathematics with references to student work and discussion in order to reinforce the purpose of the lesson. | **YES / MOSTLY / SOMEWHAT / NOT YET**  **Explanation**: |