User Guide: College and Career Readiness Expectations for Mathematics

INTRODUCTION

The College and Career Readiness Instructional Expectations for Mathematics is a tool designed to measure the teacher actions that are central to readying students for college and career success in Mathematics. The tool is the result of a high-level collaboration between multiple states, local education agencies, and several experts in the field. The tool is designed within a college and career-readiness framework and so draws on detail found in the Common Core State Standards. However, this tool is not part of the Standards themselves.

These expectations that comprise this tool are summarized in the three shifts below:

1. **Focus:** Focus instruction strongly where the Standards focus (the major work of the grade)
2. **Coherence:** Think across grades, and link to major topics within grades
3. **Rigor:** In major topics pursue *conceptual understanding,* procedural *skill and fluency,* and *application* with equal intensity

It is important to note that these shifts and the accompanying observation tool do not represent the full universe of teacher actions required for effective instruction. Many practices that are necessary for effective teaching—such as classroom management and lesson planning—are not included in this observation tool. This is not meant to diminish the importance of these practices as many of them are essential for student success. However, this tool focuses specifically on college and career readiness, and through that lens, on the teacher actions that can be most directly observed to ascertain whether students are effectively being prepared by teachers for success.

DESIGN PRINCIPLES

The College and Career Readiness Instructional Expectations tool was designed to meet three key principles:

1. *Focused and specific*

   An observation using this tool should result in a simplified but rich portrait of instruction. Teachers should not be required to use their full repertoire of instructional practices during every observation. Rather than a comprehensive list of every possible aspect of a teacher practice, this rubric is grounded in specific practices that cultivate college and career readiness and the Common Core State Standards. This tool should be effective in both brief and full class observations.

2. *Observable and clear*

Expectations for teachers should be straightforward and unambiguous. That is, whether or not a teacher meets each expectation should be inescapably clear to an observer and should not require references to additional material. A principal or other evaluator should be able to use this tool consistently and reliably without additional training in how to use the tool itself.

3. *Fair and humane for teachers*

   The expectations for teachers must be equitable, aligned to clear instructional priorities, and respectful of the time of teachers. Further, the expectations should form the backbone of professional development support for teachers and phase in in appropriate ways over time.

PURPOSE

The ultimate goal of the College and Career Readiness Instructional Expectations tool is to improve instruction by making clear the essential expectations for teachers. To this end, it represents a framework to observe and offer targeted feedback to individual teachers on a focused set of the most important instructional expectations. If implemented consistently across a school or district, this tool provides an opportunity to gather data that can be aggregated to determine an overall picture of teacher effectiveness in a school or school district. The tool should also drive professional development to align with these key expectations.

To accomplish this purpose, the tool is divided into three columns: *Expectations*, *Observed Practice*, and *Notes to Guide Observation*. *Expectations* outline the key competencies for teachers while *Observed Practice* is the scale for measuring those competencies (the scale is dichotomous or incremental based on the nuance required to measure). The *Notes to Guide Observation* provide additional information and clarification to the *Expectations* when appropriate.

TEACHER EXPECTATIONS

The expectations in this tool represent the instructional practices that an observer should look for in each observation. They are divided into three categories, or domains: (1) *Engaging Students in Learning,* (2) *Quality of Instructional Strategies & Discussion Techniques,* and (3) *Assessing Student Work through Evidence.* A fourth category—*Key Practices and items to look for over the course of the year*—focuses on measuring whether assessment, both formative and summative, meets the expectations of for rigor by assessing fluency, conceptual understanding, and application problems consistently throughout the year.

An important distinction exists in balancing these three aspects of rigor over a full year of instruction as compared to an individual classroom activity. The Common Core State Standards prioritize fluency,

conceptual understanding, and application equally over the course of a year, and teacher practice in preparing students for college and careers should reflect that balance. However, any given classroom task will privilege one of these aspects over the others. Therefore, teachers should not attempt to prioritize the three aspects or rigor equally in every activity, but rather should aim for balance over the course of a year.

In each domain of the observation tool, the expectations focus on teachers leading students to greater success in both the math content as well as the practices of successful mathematicians. Teachers should note that expectations reflect their content choices (e.g. “Does the math content of the activity concentrate heavily or entirely on the major work of the grade?”) as well as their ability to instill strong mathematical practices in students (e.g. “Are students talking about each other’s thinking?”).

OBSERVER EXPECTATIONS

The College and Career Readiness Instructional Expectations tool is designed for simplicity and ease of use; observers should require little to no additional training to use this tool. However, the observer is responsible for carefully observing the classroom for the length of the observation—which could be as short as 10-15 minutes—and providing prompt feedback to the teacher based upon the framework. Further, observers are responsible for conducting multiple observations within the course of a year—a strong recommendation is at least six separate instances—in order to ensure teacher buy-in and gather sufficient data to determine the balance of items that should be evaluated in aggregate over the course of the year. When appropriate, the observer should work with teachers to develop an action plan to improve practice in the key expectations outlined in the framework.