Student Work Protocol

Name:	Lesson/Unit Title:
Grade:	Task Title:

Introduction:

Student work can be used as a strong indicator of the levels of proficiency for Kentucky Academic Standards. This protocol is adapted from the EQuIP Student Work Analysis Tool (SWAT) that describes a process for collecting and analyzing student responses to the demands of a task. This protocol can be adapted and/or used for multiple purposes. For example a group of teachers might use this protocol to inform their own instruction of a particular task or school/district might use this protocol for professional learning activities aimed at a deeper understanding of student proficiency for the standards.

The Objectives

• To identify key aspects of how performance indicates student proficiency and understanding, with respect to the targeted Kentucky Academic standards.

• To illustrate levels of student proficiency through analysis of samples of student work from a task within a unit.

The Steps

Step 1: Analyze the Task

Step 2: Analyze Alignment to the Kentucky Academic Standards in Mathematics

Step 3: Implement the task

Step 4: Analyze Student Work Samples

Step 5: Determining Next Steps

Collaborative Process

Using this protocol as a team (MIT, +2 Teachers and Regional Coordinators) allows teachers the opportunity to dive deeper into the standards to meet students' needs. This also gives the MAF team the opportunity to determine next steps the MIT and classroom teacher are able to focus on in the student's mathematics instruction.

The Task

When selecting the higher cognitive demand task in order to see students doing mathematics, look for the following characteristics:

- Requires complex and non-algorithmic thinking, rather than a predictable, well-rehearsed approach or pathway.
- Task instructions do not include a worked-out example.
- Requires students to explore and understand the nature of mathematical concepts, processes or relationships.
- Demands self-monitoring or self-regulation of one's own cognitive processes.
- Requires students to access relevant knowledge and experiences and make appropriate use of them in working through the task.

The Collections-The MAF +2 teachers will complete the student work analysis chart 3 times a year on the same 3 selected students (one student below 25th percentile who receives services from the MIT (if primary), one student between the 45th and 75th percentiles and one student above grade level at the 85th percentile or above) and will upload the data to Abacus in order to track student growth.

Steps for the Student Work Protocol-Mathematics

STEP 1: Analyze the Task

Begin by considering the task's mathematical goal and cognitive demand. The goal is to get a clean "first impression" of the task from the perspective of a grade-level student.

- Teachers work through the task
- Study the task, including any associated texts and/or prompts, making notes about the possible mathematical goal and cognitive demand.

Guiding Questions:

- What is the mathematical goal of the task?
- How might a student enter into this task? Are there multiple entry points?
- Which standards for mathematical practice might be applied in the task?

Notes Regarding Purpose and Demands of Task:

Step 2: Analyze Alignment to the Kentucky Academic Standards

In this step, the discussion focuses on the alignment of specific standards to the task.

- Teachers determine which standards are targeted by the task.
- Highlight the part of the standard that this task addresses from the mathematical goal in Step 1.

Guiding Questions:

• If the task is not completely aligned to the standards, how are you able to modify the task to meet the full intent of the standard?

Notes on Alignment of the of Task to the Standards:

STEP 3: Implement the Task with Students

In this step, students will independently complete the instructional task.

- Provide any necessary materials for student use.
- Encourage student thinking through questioning and encouragement without revealing answers.

Guiding Questions:

- What types of questions might be appropriate to foster student thinking for this task?
- What encouragement can I offer students to promote growth mindset and perseverance without hindering productive struggle?

Notes on Potential Questions to Support Student Thinking and Perseverance:

STEP 4: Analyze Student Work Samples

In this step, teachers analyze individual student work samples. Use the Student Work Analysis Chart on the next page to record individual analysis for each sample of student work.

- Identify student work level of the targeted standards based on this task (Below, At, or Above Grade-Level Proficiency).
- Give evidence of the students' ability to reason and problem solve through this task.
- List any barriers to learning that impacted students ability to successfully complete this task? (e.g., English Language Learners, directions, diagrams, etc.)
- Consider multiple ways a student might show proficiency. Keep in mind there may be multiple approaches to the task that would lead to evidence.

Guiding Questions:

- How might student work differ for students performing below grade level on this task? (At Grade-Level or Above Grade-Level Proficiency)
- What strategies were used to solve this task? How might the teacher encourage the use of additional strategies?

STEP 5: Determining Next Steps

This step allows teachers to look for patterns and trends across the whole collection of student work from the chart in Step 4.

- Analyze the whole collection of samples for the task, looking for patterns.
- Teachers use the analysis of student work to inform the next steps of instruction.

Guiding Questions:

- What aspects of the student work demonstrate proficiency with the standards?
- How do the patterns/trends observed across the collection of student work enhance understanding or bring out common student misconceptions of student proficiency?
- What implications for instructional practices are needed for next steps?

Notes on Determining Next Steps:

Student Work Analysis Chart

Name: _____ Task: _____ Targeted Standards: _____ Date: _____

	Identify students based on universal screener (Below 25%, At 45-75%, or Above Grade-Level 85% and above).	Give evidence of the students' current ability to reason and problem solve through this task.	List any barriers to learning that impacted students ability to successfully complete this task? (e.g., English Language Learners, directions, diagrams, etc.)	Identify next instructional steps to move students learning.
Student #_____				
Student #_____				
Student #_____				
