Math Analysis/Adapt Instruction Notecatcher

Use this process to analyze data from a recent math assessment to identify students' strengths and gaps, and create a targeted, assets-based plan for future instruction.

Decision 1: Choose priority standards for analysis, and study the language of the standard.

Explanation and Considerations:

- Identify which standards were taught and where students were most successful.
- Identify standards where students struggled the most. (*Which of these are most foundational?)*
- Focus on standards from major clusters or standards that support the major work.
- Choose two or more connected standards to prioritize, such as standards within the same cluster or related major work/supporting standards.
- Study the standards by reading the language of the standard and studying Next Generation items. (*What concepts and skills are developed in and across the standards? What aspects of rigor are being targeted?)*

Notes:

Decision 2: Solve items assessing priority standards & compare to problems and exercises used in instruction.

Explanation and Considerations:

- Solve 2-3 items that assess the prioritized standards, including constructed response items to deepen content knowledge, identify required skills and understandings, and anticipate areas of struggle.
- Consider your instruction of the standards, including *which* problems and exercises students engaged with and *how*. (*Who was doing most of the heavy lifting?)*
- Keeping in mind the assessment items, determine strengths of instruction and gaps that may have caused students to struggle.

Notes:

Decision 3: Analyze data and student work to identify areas of success and struggle, & form a hypothesis about why students struggled.

Explanation and Considerations:

- Dig into the data for prioritized standards, including looking at student performance and student work from all item types. *(What does student work illustrate about what students were thinking?)*
- Draw conclusions about what students understand and do not understand.
- Form a hypothesis about why students struggled, taking into consideration your analysis of the standards, assessment items, and instructional gaps.
- Resource: Math Item Analysis Data Takeaways

Item	Strengths to build from	Opportunities for growth

Summary of Data Analysis:

Hypothesis:

Decision 4: Decide how you will address student skill gaps and misconceptions in upcoming instruction.

Explanation and Considerations:

- Create a plan to address student gaps based on the data, drawing on conclusions from data analysis and your hypotheses about why students struggled.
- Consider *how* you will address gaps and root causes, intentionally building from student understanding and working to re-engage students with the content in a new way.
- Decide *when* you will re-engage students, looking for opportunities to address gaps in upcoming instruction, if possible. *(What upcoming standards are connected to students' gaps?)*

Notes: