Preparing for Instruction

Identify a grade-level Critical Area of Focus — a mathematical topic of related standards — think about what your typical instruction for this critical area of focus looks like, then determine the changes likely needed to grow all students mathematically.

- What was present in past instruction that helped students perform well?
  - Using the Gap Analysis, Critical Area of Focus, Learning Progressions and Model Curriculum documents, what previous learning is likely absent or weak?
  - What experiences would support bridging the gap(s)?
  - How could you strengthen the Standards for Mathematical Practice to help support or enhance learning?
    - Specifically, what tasks would be used?
- What does typical instruction include?
  - Models/representations? What models or representations need introduction?
  - One-step, two-step or multi-step problems? Is more experience needed? What?
  - Routine and non-routine problems? Is more experience needed? What?
  - Mathematical and real-world contexts? Is more experience needed? What rich tasks could incorporate multiple standards?
- Did the mathematical contexts use numbers and operations appropriate for the grade level?
  - How could those numbers be modified to highlight the mathematical understanding needed and increase access for all students?
- Were the real-world contexts familiar or unfamiliar to the students?
  - How do you know?
  - What is needed now?
- Did the instruction allow opportunities for student reasoning and communication?
  - Productive struggle?
  - Student analysis of individual work, thinking and reasoning of others?
  - Descriptions, explanations and justifications?
  - Error analysis and reasonableness of answers?
  - What changes are needed to strengthen the Standards for Mathematical Practice?
- From this analysis, what overall changes are needed in instruction?
  - What instructional strategies should be maintained?
  - What instructional strategies require modification?
  - What needs to happen next to increase learning for all students?
    - Resources
    - Instructional strategies
    - Professional development
      - Do I need to seek out professional learning opportunities? What opportunities do I have for growing my own learning? What supports do I have to make these changes?