Mathematical Modeling Lesson Analysis Tool
Holistic Lesson Analysis

Name: _____ Grade: _____ Date:_____ Lesson Title: _____ (Task or routine)

Math Modeling Phases	Student Modeling Competency Look Fors Students …...	Reflection on Different Parts of the Modeling Lesson What went well? What was challenging? Areas for Growth?
1) **Problem Posing-** making sense of real-world situations and posing MM problems	☐ Ask mathematical questions related to the situation ☐ Use information and define the problem ☐ Empathize/connect with the problem. ☐ Bring in their experiences, funds of knowledge and cultural connections to the problem situation	
2) **Identifying important quantities**	☐ Name and describe relationships between important quantities/variables ☐ Recognize variables can change ☐ Make reasonable assumptions, choices, and decisions ☐ Assumptions stated are relevant to the situation and MM problem	
(3) **Building/operating on mathematical model**s, which includes identifying possible models expressed in various forms (equations, written descriptions, etc)	☐ Reach a solution related to the problem posed ☐ Use words, pictures, diagrams, tables and/or explanations to share a solution/model ☐ Use math to demonstrate understanding of how the quantities are related ☐ Correctly use mathematics in their model ☐ Perform operation on the variables and relationships	
(4) **Analyze and interpret results** in relation to the real-world context	☐ Explain how their solution meets the situation ☐ Consider what if scenarios …how the model might change with other variables ☐ Compare and contrast other solutions/ models to identify relations among quantities	
(5) **Revise, refine and report**	☐ Explain how their model works to solve the problems ☐ Identify limitations in their model ☐ Summarize and clearly communicate their model and solution ☐ Explain how their model can help someone else in a similar situation	

How did the lesson support equitable participation (multiple contributions, diverse ideas valued, high engagement)?