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| --- | --- | --- | --- | --- | --- |
| Teacher(s): | School: | | Preconference Date: | | |
| Observation Date: | Year teacher completed FoM: | | Observation/Self Reflection 1 2 3 | | |
| Time: | Observer (if applicable): | | | Grade Level(s): | |
| Content, Program or Strategy (i.e. NumberWorlds,  Math I, etc): | | Level (if applicable): | | | Class Period and/or Location (i.e. Synchronous remote instruction/face to face): |
| # students in group: | | # Model Lesson Completed (if applicable): | | | Co-Taught Lesson: YES / NO |
| Sum of Observed Items (a): | | Number of Observed Items (b): | | | Average Score (Sum of observed items divided by the number of observed items a/b): |

The teacher has completed the following course(s): Check all that apply.

Co-Teaching-Going Beyond Basics  FoM  Trained in Program/Strategy by a certified instructor

**Teacher Self Reflection Notes:** *If completing the form for self-reflection, the teacher/service provider using the tool should have completed FoM*. After teaching or watching a video of your math lesson, rate your lesson using the rating scale below.

***Observer Notes****: If completing the form as an NC SIP site for fidelity data collection, the observer using the tool should have completed the All Leaders: FoM Overview and/or completed Level 1 of FoM. While observing the teacher, do not coach the teacher during the observation. This information can be used for coaching after the observation is complete. The observation should last through the entire lesson.*

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| **RATING SCALE** | | **All items will not be observed within one classroom visit.** | |
| ***Rating 0****=* Skill not Demonstrated/Missed opportunity | ***Rating 1****=* Improperly Implemented | ***Rating 2****=* Somewhat Properly Implemented | ***Rating 3****=* Appropriately Implemented |

* Leave the rating **BLANK** if the skill was NOT APPLICABLE to the observation. **Indicate scale score in the left-hand column of the form below.** *(R Column= Numerical Rating)*

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| **The lesson utilizes language that attends to precision, is mathematically accurate and adequately scales to higher level mathematics.** | | | | |
| ***TR*** | ***Teacher evidence, examples and vital behaviors seen in the classroom*** | ***SR*** | ***Student evidence, examples and vital behaviors seen in the classroom*** | ***Comments*** |
|  | Promoting discourse, growth mindset, and perseverance through productive struggle |  | Perseverance and discourse using math tools such number lines, base ten blocks, and visual models connected to computation |  |
|  | Uses language of equal value as opposed to “same as” for the equal sign |  | Language that always attends to precision (same value, composing and decomposing, tens vs one’s vs hundreds and the relationship of power of ten) |  |
|  | Mathematical language is accurate and connects to the components of number sense without fostering misconceptions that may expire in upper grades mathematics |  | Discourse that demonstrates the student recognizes and make use of patterns and/or structures |  |
|  | Conceptual understanding that fosters the ability to reason and communicate mathematically |  | Reasons abstractly, as well as quantitatively and communicates that to others |  |
|  | Engages students in discourse and activities that improve number sense |  | Students reason and respond to the thinking of others |  |
|  | Heterogeneous grouping of students with teacher-facilitated questions that promote rigorous dialogue and understanding |  | Use of symbols and words to describe and explain math, as well as construct arguments |  |
| **Making connections between math concepts, the components of number sense and to previous learning;**  **encouraging students to build their own understanding.** | | | | |
| ***TR*** | ***Teacher evidence, examples and vital behaviors seen in the classroom*** | ***SR*** | ***Student evidence, examples and vital behaviors seen in the classroom*** | ***Comments*** |
|  | Promotes understanding of the importance of derived facts to solve computation problems |  | Uses derived facts to solve computational problems and can explain why |  |
|  | Mathematical properties are embedded within content and components of number sense (not definitions to be memorized) |  | Uses mathematical properties to solve problems and explain why they work |  |
|  | Models, uses think aloud, and components of number sense to promote the connections between data and its meaning |  | Represents data in mathematically appropriate ways and interprets data with accurate justifications |  |
|  | Teaches place value as a system and not just a place |  | Recognizing place value system not just as a place |  |
|  | Mathematical situations/structures (not key words) are taught explicitly |  | Can explain and model using mathematical situations/structures to solve word problems |  |
|  | Emphasizes part-whole relationships and conservation of units |  | Grouping and attention is given to units, recognizes part-whole relationships |  |
|  | An underlying story structure or context that is connected across multiple models to develop the concepts |  | Can develop and use stories to connect to the mathematical procedures in a mathematically accurate way (prove/disprove claims) |  |
|  | Instruction builds on what they already know through use of think aloud, models, and components of number sense |  | Frequently makes connections between and among situations/concepts with repeated practice |  |
|  | Connections of counting numbers to objects counted - accurate language that conserves quantity and magnitude and equality |  | Makes mathematically accurate connections of counting numbers to objects counted |  |
|  | Teaches flexible forms for computation and multiple ways of regrouping and forms of the value |  | Can compute and reason using decomposing/composing, partial products, concrete multiplication, different forms of an equal value and proportional reasoning |  |
|  | Teaches the relationship between components of number sense |  | Utilizes and references previously learned concepts to develop a more complex deeper understanding |  |
| **Evidence of all three, concrete, representational and abstract in the lesson,**  **ability for students to access information at all three levels of understanding.** | | | | |
| ***TR*** | ***Teacher evidence, examples and vital behaviors seen in the classroom*** | ***SR*** | ***Student evidence, examples and vital behaviors seen in the classroom*** | ***Comments*** |
|  | Ongoing formative assessment and high-quality feedback |  | Monitors own progress and seeks feedback |  |
|  | Teaches multiple ways to represent concepts and solve problems |  | Extension of ideas by using more than one strategy or explain the current strategy with words and mathematically accurate visuals |  |
|  | Mathematical models (both concrete and visual) are appropriately introduced and taught explicitly |  | Application of a variety of appropriate concrete and visual mathematical models for concepts |  |
|  | Entry point of the lesson includes a concrete display of the concepts |  | Displays multiple ways to represent concepts and solve problems |  |
|  | Teacher displays understanding of number sense by fostering the use of mental math and the mental number line |  | Student displays number sense by using mental math  Student displays number sense by using a mental number line |  |
|  | Meaning of addition, subtraction, multiplication and division algorithms are displayed concretely, visually and abstractly |  | Uses concrete, representational, and abstract models with understanding instead of just procedures to solve problems |  |
|  | Focus on conceptual understanding and not just a procedure |  | Reasoning behind algorithms is stated or displayed |  |
|  | Base Ten Frame/Mat |  | Base Ten Frame |  |
|  | Graphs |  | Graphs |  |
|  | Hundreds Board |  | Hundreds Board |  |
|  | Base Ten Blocks |  | Base Ten Blocks |  |
|  | Fraction Strips/Bars/Tiles |  | Fraction Strips/Bars/Tiles |  |
|  | Array Models |  | Array Models |  |
|  | Chips |  | Chips |  |
|  | Unifix Cubes |  | Unifix Cubes |  |
|  | Tallies |  | Tallies |  |
|  | Situation Structures |  | Situation Structures |  |
|  | Number Bonds |  | Number Bonds |  |
|  | Number Lines |  | Number Lines |  |
|  | Subitizing |  | Subitizing |  |
|  | Money Exchanges |  | Money Exchanges |  |
|  | Pawns and Number Cubes/Hands on Equations |  | Pawns and Number Cubes/Hands on Equations |  |
|  | Visual Representations |  | Visual Representations |  |
|  | Concrete Multiplication Mat |  | Concrete Multiplication Mat |  |

**(Rating is only for reflective or coaching purposes; not an evaluative score)**

**Teacher Rating:**

Sum of Observed Items: Number of Observed Items: Avg. (Sum of observed items divided by the number of observed items a/b):



**Student Rating:**

Sum of Observed Items: Number of Observed Items: Avg. (Sum of observed items divided by the number of observed items a/b):



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| Strengths: Next Steps: |