Mathematics CFA Template

|  |
| --- |
| Pre-Instruction |
| 1. List the Standard. Underline the nouns (what students will know) and highlight the verbs (what student will do): |
| 8.EE.4 Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities. Interpret scientific notation that has been generated by technology. |
| 2. Mathematical Practices |
| SMP 1. Make sense of problems and persevere in solving them.  SMP 4. Model with mathematics.  SMP 5. Use appropriate tools strategically.  SMP 6. Attend to precision. |
| 3. I Can Statements – Put learning targets in student friendly terms. |
| I can convert standard numbers to scientific notation.  I can convert scientific notation to standard form.  I can choose an appropriate unit of measurement.  I can interpret scientific notation on a graphing calculator.  Depth of Knowledge of the standard (Highlight the Level of the Learning Target):  Level 1 Recall; Level 2 – Skill/Concept; Level 3 – Strategic Thinking; Level 4 – Extended Thinking |
| 4. List the skills students need to know in order to begin this standard: |
| Understand place value.  Powers of ten. |
| 5. What type of assessment am I going to write? [selected response (m/c, t/f, y/n, matching, fill in \_\_\_) **or** constructed response (**short:** word, phrase, sentence, single problem; **extended**: multi-step operations in math, problem solving)] List the assessment questions. |
| Constructed Response  1. Convert 8109 to scientific notation.  2. Convert -.000703 to standard form.  3. Write 2.6E5 in scientific notation.  4. Would 3.4 x 10 -2 most appropriately be measured using mm or km? |
| 6. Scoring Guide |
| **Exceeds Expectations:**  **Proficient:**  Correctly responds to all four problems.  **Approaching Proficiency:** Correctly work numbers 1 and 2.  **Not Proficient:** Completes one or less correctly. |