

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.NS.2 **Use** rational approximations of irrational numbers to compare the size of irrational numbers, **locate** irrational numbers approximately on a number line diagram, and **estimate** the value of expressions (e.g., π^2).

2. Mathematical Practices

SMP 4. Model with mathematics.

SMP 5. Use appropriate tools strategically.

3. I Can Statements – Put learning targets in student friendly terms.

I can approximate an irrational number.

I can compare the size of irrational numbers.

I can locate irrational numbers using a number line.

I can estimate the value of expressions.

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:

1. Definition of rational and irrational numbers.
2. Converting rational and irrational numbers to a decimal.
3. Arrange numbers in numerical order.
4. Know and be able to create, understand, and use a number line.

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. Place the following numbers on a number line.

3.4, $\sqrt{2}$, -.89, 73%, 1/5, -5

6. Scoring Guide

Exceeds Expectations: Demonstrated response by converting all rational to irrational numbers.

Proficient: Correctly placed all numbers on the number line.

Approaching Proficiency: Correctly placed four to five numbers on the number line.

Not Proficient: Correctly placed one to three numbers on the number line.