

Mathematics CFA Template

Pre-Instruction

1. List the Standard. Underline the nouns (what students will know) and highlight the verbs (what student will do):

1.MD.4 **Organize**, **represent**, and **interpret** data with up to 3 categories; **ask** and **answer** questions about the total number of data points, how many in each category and how many more or less are in one category than in another.

2. Mathematical Practices

1. Make sense of the problem and persevere.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

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

1. I can sort, show, and explain information with up to 3 categories in a graph, table, or chart.
2. I can ask and answer questions about the total number.
3. I can compare how many more or less in each category.

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. Classify objects in categories
2. Count and sort the number of objects in each category
3. Understand the concept of more or less

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.

Take a class survey over a topic that has no more than 3 categories (ex: What is your favorite kind of ice cream?)

The students will interpret the information and represent the data into a bar graph. The following questions will be asked. (might vary slightly according to topic)

1. What is the total number of votes taken?
2. Which category has the most?
3. Which category has the least?
4. How many more did the most have than the least?

6. Scoring Guide

Exceeds Expectations:

Proficient: correct graph w/ 4 answered correctly

Approaching Proficiency: correct graph w/ 2 out of 4 answered correctly

Not Proficient: Incorrect graph or less than 2 answered correctly

