

Mathematics CFA Template

Pre-Instruction

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

4.OA.3 **Solve** multi-step word problems posed with whole numbers and having whole number answers using the four operations, including problems in which remainders must be interpreted. **Represent** these problems using equations with a letter standing for the unknown quantity. **Assess** the reasonableness of answers using mental computation and estimation strategies using rounding.

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.

Look for and express regularity in repeated reasoning

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

1. I can solve word problems with the four operations.
2. I can solve division word problems that may include remainders.
3. I can use estimating strategies to solve word problems.
4. I can show/represent an equation with an unknown.

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. Understand properties of multiplication and the relationship between multiplication and division.
2. Understanding of rounding.
3. Understand the four operations.
4. Understanding of inverse operations.

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.

1. On a vacation, your family travels 267 miles on the first day, 194 miles on the second day and 34 miles on the third day. About how many total miles did they travel ? (Reasonable answer between 500-550 miles).
2. Six adults and five classes of 32 students went to the museum by bus. If each bus held 25 passengers how many busses were needed?
3. Solve the following problems:
 - A. CD's are on sale for \$4.00. Peter has \$30.00 in his wallet. How many CD's can he buy?
 - B. Dad divided 30 large cookies onto 4 plates. How many cookies were on each plate.For each number story:
 - *Draw a picture and write an open statement.
 - * Use a division algorithm to represent the problem.
 - * Explain why the answer you got for each problem makes sense.
4. Chris bought clothes for school. She bought 3 shirts for \$12.00 each. And a skirt for \$15.00. How much money did Chris spent on her new school clothes. Show an equation using variables to solve the problems.
($3 \times \$12. + \$15 = a$)

5. Tom Had 114 baseball cards. He kept 10 and shared the rest evenly among his eight friends. How many baseball cards did each of his friends get?

6. Scoring Guide

Exceeds Expectations: 6 out of 6 correct. Can solve in more than one way. Explain work using correct terms. Be able to peer teach.

Proficient: 6 out of 6 correct

Approaching Proficiency: 5 out of 6 correct

Not Proficient: anything lower than 5 correct.

