

Mathematics CFA Template

Pre-Instruction

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

5.NF.2 **Solve** word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, eg., by **using** visual fraction models or equations to **represent** the problem. Use benchmark fractions and number sense of fractions to **estimate** mentally and **assess** the reasonableness of answers. For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.

2. Mathematical Practices

1. Make sense of problems and persevere in solving them.
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.

I can solve word problems where I add fractions with or without common denominators.

I can solve word problems where I subtract fractions with or without common denominators.

I can use benchmark fractions to help me mentally evaluate my answer to make sure it is reasonable.

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 fractions as numbers that lie between whole numbers on a number line.

Add and subtract fractions with or without common denominators.

Find equivalent fractions.

Read and determine when to add or subtract in a word problem.

Know benchmark fractions.

Compare fractions

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.

Solve the following open response questions.

1. Your teacher gave you $1/7$ of the bag of candy. She also gave your friend $1/3$ of the bag of candy. If you and your friend combined your candy, what fraction of the bag would you have? Estimate your answer and then calculate. Explain your reasoning for your estimate. How reasonable was your estimate and show your work in your calculation.
2. Melissa had $2 \frac{1}{3}$ candy bars. She promised her brother that she would give him $1/2$ of a candy bar. How much will she have left after she gives her brother the amount she promised? Estimate your answer and then calculate. Explain your reasoning for your estimate and show your work for your calculation.

6. Scoring Guide

Exceeds Expectations: Student solves both problems correctly with correct work. Estimate is supported with several examples and explanation.

Proficient: Student solves both problems correctly with work shown with an estimate supported by an explanation.

Approaching Proficiency: Student solves both problems correctly but lacks an estimate with explanation.

Not Proficient: Student does not solve correctly.

Name: _____

Date: _____

Power Standard: 5.NF.2

Directions: Solve the following open response questions.

1. Your teacher gave you $\frac{1}{7}$ of the bag of candy. She also gave your friend $\frac{1}{3}$ of the bag of candy. If you and your friend combined your candy, what fraction of the bag would you have? Estimate your answer and then calculate. Explain your reasoning for your estimate. How reasonable was your estimate and show your work in your calculation.

2. Melissa had $2\frac{1}{3}$ candy bars. She promised her brother that she would give him $\frac{1}{2}$ of a candy bar. How much will she have left after she gives her brother the amount she promised? Estimate your answer and then calculate. Explain your reasoning for your estimate and show your work for your calculation.

