

Recipe Cost Card Template

Menu Costing for Culinary Educators | NC ProStart

Worksheet 1

Name: _____ Date: _____

Recipe Name: _____

Number of Portions: _____ Portion Size: _____

Target Food Cost %: _____ Required Selling Price: _____

Ingredient	Purchase Unit	AP Cost/Unit	Qty Used	Line Cost

TOTAL RECIPE COST: _____

PORTION COST (Total ÷ # Portions): _____

SELLING PRICE (Portion Cost ÷ Target Food Cost %): _____

Conversion reminder: Cost per Recipe Unit = AP Price ÷ Units per Package | Then: Line Cost = Cost per Recipe Unit × Quantity Used

Unit Conversion Reference Sheet

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Worksheet 2

Keep this sheet in your lab folder. These are the conversions you will use on every recipe cost card.

WEIGHT CONVERSIONS

Unit	Equals	Notes
1 pound (lb)	16 ounces (oz)	Most proteins, produce, dairy, dry goods
1 ounce (oz)	28.35 grams (g)	For precise/pastry recipes
1 kilogram (kg)	2.2 pounds / 1,000 g	Metric recipes & international sourcing
¼ pound	4 oz / 0.25 lb	Quarter-pound = 4 oz
½ pound	8 oz / 0.50 lb	Half-pound = 8 oz
¾ pound	12 oz / 0.75 lb	Three-quarters = 12 oz ← common fraction error

VOLUME CONVERSIONS

Unit	Equals	Fluid Ounce Equivalent
1 teaspoon (tsp)	⅓ tablespoon	⅓ fl oz
1 tablespoon (Tbsp)	3 teaspoons	½ fl oz
1 fluid ounce (fl oz)	2 tablespoons	1 fl oz
1 cup	8 fl oz / 16 Tbsp / 48 tsp	8 fl oz
1 pint	2 cups / 16 fl oz	16 fl oz
1 quart	2 pints / 4 cups / 32 fl oz	32 fl oz
1 gallon	4 quarts / 8 pints / 16 cups / 128 fl oz	128 fl oz

COMMON PACKAGE SIZES TO KNOW

Package	Net Weight or Volume	Cost-per-Unit Example at \$X
#10 Can	~6 lbs 6 oz / ~96 fl oz	Divide price by oz for cost/oz
Case of eggs (30 doz)	360 eggs	Divide case price by 360 for cost/egg
1-lb block butter	16 oz / 4 sticks	Price ÷ 16 = cost/oz Price ÷ 4 = cost/stick
1-qt heavy cream	32 fl oz	Price ÷ 32 = cost/fl oz
1-gal milk	128 fl oz / 16 cups	Price ÷ 128 = cost/fl oz
Herb bunch (avg)	~30 stems — ALWAYS count	Price ÷ stem count = cost/stem

QUICK CONVERSION FORMULA

Step 1: Cost per Recipe Unit = AP Price ÷ Units per Package

Step 2: Line Cost = Cost per Recipe Unit × Quantity Used

PRACTICE PROBLEMS — Work these on the back of this sheet

1. Butter at \$3.20/lb. Recipe uses 6 oz. Line cost = ?
2. Milk at \$3.60/gallon. Recipe uses 3 cups. Line cost = ?
3. Heavy cream at \$3.20/quart. Recipe uses 12 fl oz. Line cost = ?
4. Herbs: \$2.49 per bunch of 30 stems. Recipe uses 12 stems. Line cost = ?
5. Olive oil at \$4.32/quart. Recipe uses 2 Tbsp. Line cost = ?
6. Flour at \$0.89/lb. Recipe uses 2¾ lbs. Line cost = ?

Recipe Scaling Worksheet

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Worksheet 3

Name: _____ Date: _____

Conversion Factor (CF) = Desired Yield ÷ Original Yield | New Amount = Original Amount × CF

Part 1 — Scale the Tomato Bisque

Original recipe makes 12 servings (6 oz each). You need 36 servings.

Step 1 — Conversion

Factor: $CF = 36 \div 12 =$ _____

Ingredient	Original Amount	× CF	Scaled Amount	Flag? (Y/N)
Crushed Tomatoes	4 lbs	× _____		
Heavy Cream	2 cups	× _____		
Onion, diced	1 lb	× _____		
Garlic, minced	6 cloves	× _____		
Butter	3 oz	× _____		
Fresh Basil	8 stems	× _____		
Salt	1½ tsp	× _____		
Black Pepper	¾ tsp	× _____		
Chicken Stock	1½ qts	× _____		

Part 2 — Scaling Judgment Questions

1. Which ingredients did you flag, and why?

2. For salt and pepper, what amount would you actually start with (remember: 60–75% of calculated)?

3. The original recipe cooks for 25 minutes. What is your estimated cook time for the scaled batch, and why?

4. What equipment change might be needed? Why?

Part 3 — Cost the Scaled Recipe

Using the prices below, calculate the total cost and portion cost for your scaled recipe.

- Crushed Tomatoes: \$1.89/lb
- Heavy Cream: \$3.20/qt
- Onion: \$0.79/lb
- Garlic: \$0.45/head (10 cloves)
- Butter: \$3.20/lb
- Fresh Basil: \$2.49/bunch (30 stems)
- Salt & Pepper: use 5% misc add
- Chicken Stock: \$2.40/qt

Total Recipe Cost:

**Portion Cost (÷ 36
servings):**

**Selling Price at 32% food
cost:**

Practice Costing Worksheet

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Worksheet 4

Name: _____ Date: _____

Use your Unit Conversion Reference Sheet (Worksheet 2) for all conversions. Show your math.

Recipe 1 — Honey Garlic Chicken (serves 20)

Prices: Chicken thighs \$2.49/lb | Honey \$4.80/lb (1 lb = ~22 Tbsp) | Soy sauce \$2.40/qt | Garlic \$0.45/head (10 cloves) | Cornstarch \$0.79/lb | Olive oil \$4.32/qt

Ingredient	Purchase Unit	AP Cost	Qty Used	Line Cost
Chicken thighs	lb	\$2.49/lb	5 lbs	
Honey	lb	\$4.80/lb	6 Tbsp	
Soy sauce	quart	\$2.40/qt	½ cup	
Garlic, minced	head	\$0.45/head	8 cloves	
Cornstarch	lb	\$0.79/lb	3 Tbsp	
Olive oil	quart	\$4.32/qt	3 Tbsp	
TOTAL RECIPE COST				
PORTION COST (÷ 20)				
SELLING PRICE (@ 30%)				

Hint: Honey is sold by weight. Use 1 lb ≈ 22 Tbsp. Cornstarch: 1 lb ≈ 3 cups (48 Tbsp). Show each conversion.

Recipe 2 — Classic Vinaigrette (makes 2 cups / 16 portions of 2 Tbsp)

Prices: Olive oil \$4.32/qt | Red wine vinegar \$2.88/qt | Dijon mustard \$3.60/lb (1 lb ≈ 2 cups) | Honey \$4.80/lb (1 lb ≈ 22 Tbsp) | Garlic \$0.45/head (10 cloves)

Ingredient	Purchase Unit	AP Cost	Qty Used	Line Cost
Olive oil	quart	\$4.32/qt	1½ cups	
Red wine vinegar	quart	\$2.88/qt	½ cup	
Dijon mustard	lb	\$3.60/lb	2 Tbsp	
Honey	lb	\$4.80/lb	1 Tbsp	
Garlic	head	\$0.45/head	2 cloves	
TOTAL RECIPE COST				
PORTION COST (÷ 16)				
SELLING PRICE (@ 25%)				

Recipe 3 — Chocolate Chip Cookies (makes 48 cookies)

Prices: AP flour \$0.89/5-lb bag | Butter \$3.20/lb | Sugar \$0.79/lb | Brown sugar \$0.99/lb | Eggs \$3.60/dozen | Vanilla \$8.40/8 fl oz | Baking soda \$0.89/lb (1 lb ≈ 90 tsp) | Choc. chips \$3.99/12 oz

Ingredient	Purchase Unit	AP Cost	Qty Used	Line Cost
All-purpose flour	5 lb bag	\$0.89/5 lb	2¼ cups (~10 oz)	
Butter	lb	\$3.20/lb	1 cup (8 oz)	
Granulated sugar	lb	\$0.79/lb	¾ cup (~6 oz)	
Brown sugar	lb	\$0.99/lb	¾ cup (~6 oz)	
Eggs	dozen	\$3.60/doz	2 eggs	
Vanilla extract	8 fl oz	\$8.40/8 fl oz	2 tsp	
Baking soda	lb	\$0.89/lb	1 tsp	
Chocolate chips	12 oz bag	\$3.99/12 oz	2 cups (~12 oz)	
TOTAL RECIPE COST				
COST PER COOKIE (÷ 48)				
SELLING PRICE @ 35%				

Conversion Error Identification Sheet-Answer Key

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Worksheet 5

Name: _____ Date: _____

Each example below contains exactly one costing or conversion error. Circle the error, explain what went wrong, and write the correct calculation.

Example 1 — Olive Oil

A quart of olive oil costs \$4.32. The recipe uses 4 fluid ounces.

Student's work:
AP Cost: \$4.32 per quart
Line Cost: \$4.32 ← student wrote the full quart price

What is the error? _____

Correct line cost = $\$4.32 \div 32 \text{ fl oz} = \$0.135/\text{fl oz} \times 4 \text{ fl oz} =$ _____

Error type: Pricing the whole package, not what was used.

Example 2 — Herbs

Fresh thyme costs \$2.49 per bunch of 30 stems. The recipe uses 8 stems.

Student's work:
AP Cost: \$2.49 per bunch
Line Cost: \$2.49 ← student wrote full bunch price

What is the error? _____

Correct cost per stem = $\$2.49 \div 30 =$ _____ | Line Cost: _____ $\times 8 =$ _____

Error type: Pricing the whole package, not what was used.

Example 3 — Butter (Fraction Error)

Butter costs \$3.20 per pound. The recipe uses $\frac{3}{4}$ lb.

Student's work:
 $\frac{3}{4}$ lb butter at \$3.20/lb
Student calculated: $\$3.20 \div 4 = \$0.80$

What is the error? _____

Correct: $\frac{3}{4}$ lb = 0.75 lb | $\$3.20 \times 0.75 =$ _____

Error type: Incorrect fraction conversion. Dividing by 4 gives $\frac{1}{4}$ lb, not $\frac{3}{4}$ lb.

Example 4 — Milk (Wrong Unit)

Milk costs \$3.60 per gallon. The recipe uses 2 cups.

Student's work:
AP Cost: \$3.60 per gallon = \$3.60 per 8 cups
Line Cost: $\$3.60 \div 8 \times 2 = \$0.90$

What is the error? _____

Correct: 1 gallon = _____ cups | $\$3.60 \div$ _____ = \$/cup | $\times 2$ cups = _____

Error type: Wrong equivalency. How many cups in a gallon? It is not 8.

Example 5 — Honey (Weight vs. Volume Mix-Up)

Honey costs \$4.80 per pound. The recipe calls for 6 fluid ounces of honey.

Student's work:
1 lb = 16 oz, so $\$4.80 \div 16 = \$0.30/\text{oz}$
Line cost: $\$0.30 \times 6 = \$1.80$

What is the error? _____

What is wrong with treating 'fluid ounces' the same as 'weight ounces' for honey? Correct approach: 1 lb honey ≈ 22 Tbsp. 6 fl oz = 12 Tbsp. Cost per Tbsp = _____ Line cost = _____

Error type: Mixing weight ounces and fluid ounces. Honey is denser than water.

Example 6 — Scaling Seasonings

A recipe for 12 serves calls for $1\frac{1}{2}$ tsp salt. A student scales up to 60 servings.

Student's work:
CF = $60 \div 12 = 5$
Scaled salt: $1\frac{1}{2} \text{ tsp} \times 5 = 7\frac{1}{2} \text{ tsp}$

What is the error? _____

What is wrong with scaling salt directly at 100% of the CF? Better approach: Start with _____ % of $7\frac{1}{2}$ tsp = _____ tsp, then adjust to taste.

Error type: Scaling salt and aromatics 1:1 with math. They do not scale linearly.

Conversion Error Identification Sheet

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Worksheet 5

Name: _____ Date: _____

Each example below contains exactly one costing or conversion error. Circle the error, explain what went wrong, and write the correct calculation.

Example 1 — Olive Oil

A quart of olive oil costs \$4.32. The recipe uses 4 fluid ounces.

Student's work:
AP Cost: \$4.32 per quart
Line Cost: \$4.32 ← student wrote the full quart price

What is the error? _____

Example 2 — Herbs

Fresh thyme costs \$2.49 per bunch of 30 stems. The recipe uses 8 stems.

Student's work:
AP Cost: \$2.49 per bunch
Line Cost: \$2.49 ← student wrote full bunch price

What is the error? _____

Example 3 — Butter (Fraction Error)

Butter costs \$3.20 per pound. The recipe uses $\frac{3}{4}$ lb.

Student's work:
 $\frac{3}{4}$ lb butter at \$3.20/lb
Student calculated: $\$3.20 \div 4 = \$0.80$

What is the error? _____

Example 4 — Milk (Wrong Unit)

Milk costs \$3.60 per gallon. The recipe uses 2 cups.

Student's work:
AP Cost: \$3.60 per gallon = \$3.60 per 8 cups
Line Cost: $\$3.60 \div 8 \times 2 = \$0.90$

What is the error? _____

Example 5 — Honey (Weight vs. Volume Mix-Up)

Honey costs \$4.80 per pound. The recipe calls for 6 fluid ounces of honey.

Student's work:
1 lb = 16 oz, so $\$4.80 \div 16 = \$0.30/\text{oz}$
Line cost: $\$0.30 \times 6 = \$1.80$

What is the error? _____

Example 6 — Scaling Seasonings

A recipe for 12 serves calls for $1\frac{1}{2}$ tsp salt. A student scales up to 60 servings.

Student's work:
 $CF = 60 \div 12 = 5$
Scaled salt: $1\frac{1}{2} \text{ tsp} \times 5 = 7\frac{1}{2} \text{ tsp}$

What is the error? _____

Budget Challenge Lab Sheet

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Worksheet 6

Name: _____ Date: _____

Group Members: _____

THE CHALLENGE

Design, cost, and present a 4-serving meal — within a \$20.00 budget.

Step 1 — Menu Plan

Main Dish: _____

Side Dish 1: _____

Side Dish 2 (optional): _____

Presentation/Garnish: _____

Step 2 — Shopping List & Cost Card

Ingredient	Purchase Unit	AP Cost	Qty Used	Line Cost
TOTAL RECIPE COST				\$
REMAINING BUDGET (of \$20.00)				\$
PORTION COST (÷ 4)				\$

Step 3 — Pricing Your Meal

Portion Cost:		(from above)
Target Food Cost %:		(choose between 28–35%)
Selling Price per portion:		= Portion Cost ÷ Target Food Cost %

Step 4 — Presentation & Reflection

1. How did your meal reflect good value at your selling price?

2. What conversion or scaling challenge did your group face, and how did you solve it?

3. If you had to do this again with a \$15 budget, what would you change?

RUBRIC	Points Possible	Points Earned
Complete, accurate cost card	10	
All unit conversions shown	10	
Budget at or under \$20.00	10	
Correct portion cost calculation	10	
Correct selling price calculation	10	
Reflection answers — quality of reasoning	10	
TOTAL	60	

Case A: The 52% Food Cost Problem

Situation

Jefferson High School's culinary lab serves lunch twice a week for 80 students. Food budget: \$240/week. Last month's total food purchases: \$1,840. Total food sales from lunch service: \$3,530.

Data

- Actual food cost % last month: 52.1%
- Target food cost %: 30–33%
- Top menu item: grilled chicken sandwich, portioned at 6 oz per serving
- Purchase price of chicken: \$3.20/lb (bought at retail grocery)
- Industry source: same product available through school co-op at \$2.10/lb
- Observation: no recipe cost cards on file; portions estimated by eye

Your Group's Analysis

1. Calculate how much over budget this program ran last month in dollar terms. Show your math.

2. Recalculate the food cost % if co-op pricing (\$2.10/lb) had been used for the chicken, assuming chicken represents 40% of total food cost.

3. What is the correct portion cost for the chicken sandwich at \$2.10/lb, 6 oz EP weight?

4. List two specific, implementable changes this program should make immediately.

Case B: The Conversion Catastrophe

Situation

A ProStart catering class planned a buffet for 80 guests. The original recipe served 12. The class scaled everything up using a CF of $80 \div 12 = 6.67$. Final food cost came in at 58% — way over the 32% target.

Data

- Original recipe: used $1\frac{1}{2}$ tsp salt, 1 tsp garlic powder, 2 tsp smoked paprika
- Scaled salt: $1\frac{1}{2} \times 6.67 = 10$ tsp (dish was inedible)
- Herb bunches (30 stems): 3 bunches purchased; student recorded \$7.47 (full cost of 3 bunches); only 60 stems used, rest discarded
- Olive oil: recipe called for ' $\frac{1}{2}$ cup' — student purchased by volume and recorded \$4.32 (1 full quart price) for $\frac{1}{2}$ cup used
- Actual $\frac{1}{2}$ cup olive oil cost: $\$4.32 \div 32 \text{ fl oz} \times 8 \text{ fl oz} = \$1.08$

Your Group's Analysis

1. Identify ALL conversion or scaling errors in this scenario (there are at least 4).

2. Calculate the correct herb cost. 60 stems from 3 bunches at \$2.49/bunch.

3. How much did the olive oil overstatement inflate the recipe cost compared to the correct amount?

4. What rule should the class follow for scaling salt and spices? Write it out.

Case C: The Program That Got It Right

Situation

Eastside High School's ProStart program has maintained a food cost between 27–31% for three consecutive semesters. The program runs a weekly student restaurant and a semester-end catering event.

Data

- All students complete a printed recipe cost card before any lab — it is 15% of the lab grade
- Unit conversion warm-up: 3 problems on the board, 5 minutes, every Monday and Wednesday
- A 'Scale It' challenge is built into every new recipe introduction — students scale from class size to 100-person event
- Pricing review: students re-cost the top 5 menu items at the start of each semester using current supplier invoices
- Budget Challenge Lab replaces one full lab per semester — \$20 cap, 4-serving meal, peer presentation

Your Group's Analysis

1. Identify which practices directly prevent conversion errors, and explain how.

2. Which practice has the highest impact on food cost accuracy? Defend your answer.

3. Design ONE new activity inspired by this program that you could implement in your classroom next semester. Describe it fully: objective, materials, student task, and how you would grade it.

4. What is the biggest barrier to implementing something like this in your program, and how might you address it?

Classroom Implementation Checklist

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Worksheet 8

Name: _____

Date: _____

Use this checklist to plan your implementation. Check off each item as you complete it. The goal is to have all Phase 1 items in place within 30 days.

PHASE 1 — Start Here (within 30 days)

- ☐ Add a Recipe Cost Card requirement to your next lab rubric (10–15 points)
- ☐ Photocopy the Recipe Cost Card Template (Worksheet 1) — one per student per lab
- ☐ Photocopy the Unit Conversion Reference Sheet (Worksheet 2) — one per student to keep
- ☐ Teach the 3-step conversion process (AP cost → recipe unit → line cost) explicitly, with examples
- ☐ Run the Unit Conversion Warm-Up twice in the next two weeks (Worksheet 2, Practice Problems)
- ☐ Complete one full Walkthrough with students before expecting independent cost cards

PHASE 2 — Build Fluency (within 60 days)

- ☐ Assign the Conversion Error Identification Sheet (Worksheet 5) as a homework or bell-ringer activity
- ☐ Introduce the Recipe Scaling Worksheet (Worksheet 3) with a recipe relevant to your current unit
- ☐ Add a 'Scale It' element to one upcoming recipe introduction
- ☐ Run the Budget Challenge Lab (Worksheet 6) — replace one standard lab with the \$20 challenge
- ☐ Use the Case Study Packet (Worksheet 7) as a group activity or assessment
- ☐ Brief peer review: students exchange cost cards and check each other's conversions

PHASE 3 — Embed into Culture (within a semester)

- ☐ Re-cost your top 5 program recipes with students using current supplier prices
- ☐ Build a 'Costing Portfolio' — students collect and reflect on 5 completed cost cards
- ☐ Run the Scale It Challenge with a real upcoming event (school restaurant, catering, bake sale)
- ☐ Introduce student-led pricing: students set the menu price for one event or special
- ☐ Invite a local chef or foodservice manager to talk about food cost in a real operation
- ☐ Reflect: which costing activities had the most impact? Adjust for next semester.

My Action Step from Today's Session

Complete this sentence before you leave today:

I will

in my next unit / by _____

Chef Michael Beers, CEC, CCA — Culinary Operations Specialist, Landscapes Golf Management |
Courtney Hamm — Director, NC Restaurant & Lodging Association Foundation | NC ProStart
Coordinator