

Lesson 1.8: Lab 1, Mug Cake or Scrambled Egg Tacos

Unit: Unit 1, Kitchen Skills and Smart Eating (Nutrition and Wellness) **Topic:** 1.2 Tools, Measuring, and Recipes **Grade:** 6 to 8 (written at grade 7; see Differentiation for the grade 6 support and grade 8 stretch) **Days:** 2 class periods of 40 minutes (Day 1 is lab prep and the Tools and Measuring Performance Check; Day 2 is the lab) **Room:** FACS lab with three kitchen stations of about seven students (a no-kitchen version is below)

Standards

- NYS module line: NYS N&W 1. Culinary Management b) Demonstrate safety and sanitation procedures when handling food and equipment
- NYS module line: NYS N&W 1. Culinary Management c) Demonstrate accurate measuring of dry/solid, liquid, and small quantity ingredients
- NYS module line: NYS N&W 1. Culinary Management d) Prepare a simple recipe
- CTE theme line: CTE HSW 4. Classroom and Workplace Safety c) Apply safety practices when using tools, machines, and equipment
- CTE theme line: CTE HSW 4. Classroom and Workplace Safety d) Wear appropriate protective clothing and gear when using tools, machines, and equipment
- CTE theme line: CTE HSW 4. Classroom and Workplace Safety e) Participate in housekeeping procedures that help to establish and maintain safe working conditions in the classroom or workplace
- CTE theme line: CTE CIR 3. Workplace Communication f) Demonstrate effective communication skills in a group setting to accomplish a task
- NYS FACS Learning Standard 1 (Intermediate), Key Idea: Students will use an understanding of the elements of good nutrition to plan appropriate diets for themselves and others. They will know and use the appropriate tools and technologies for safe and healthy food preparation.; Performance Indicator A: Students understand the relationships among diet, health, and physical activities; evaluate their own eating patterns; and use appropriate technology and resources to make food selections and prepare simple, nutritious meals.; Performance Indicator B: Students apply principles of food safety and sanitation.
- CDOS Standard 3a Universal Foundation Skills: Interpersonal Skills
- National FCS 3.0: 14.3.3 Show the ability to select, store, prepare, and serve food that is nourishing and looks good on the plate.
- National FCS 3.0: 8.5.3 Show portion control and correct scaling and measuring.

(This lesson cites more lines than usual because it is the first lab and the summative for the whole topic. The three N&W lines are the topic; the four theme lines are what the rubric's safety row and the role cards assess.)

Enduring understanding and essential question

Big idea: A kitchen is a team with a clock. Everyone has a job, every job has a time, and the food is only as good as the measuring, the reading, and the cleanup that go with it.

Essential question: What does it take for seven people to make one thing well in forty minutes?

Objectives

By the end of this lesson, students will be able to:

1. (Low) Given a station card and a role card, describe their own role's tasks in each of the four phases (prep, cook, plate and eat, clean) and the safety rule that goes with each.
2. (Mid) In a team of about seven, prepare the recipe by measuring each ingredient accurately, following the numbered steps in order, and using each tool and machine the way it was taught.
3. (High) After the lab, evaluate the team's work against the flowchart and the "what does done look like" checklist, identify the one step that cost the most time or quality, and recommend a change for Lab 2.

Vocabulary

Tier 2 (general academic): role, phase, coordinate, evaluate Tier 3 (FACS): mise en place, station, flowchart, sanitize, done (as in "what does done look like"), garnish, batter, whip. See the unit vocabulary list (Vocabulary 01.md) for Turkish, Portuguese, and Spanish.

Materials and setup

- Day 1, the performance check stations (see Assessment 01.2 - Tools and Measuring Performance Check.md): Station A, a numbered tray of ten tools and the recipe question sheet; Station B, the measuring check with flour, sugar, water, and salt, four labeled cups per student, and the gram scale; Station C, the kitchen station where the teacher runs lab prep.
- Day 1, role cards, one set per station: Handout 01.08 - Role Cards Lab 1.md (eight cards; four core and four expansion)
- Day 1 and 2, the station card for the chosen recipe, one per station and one per student: Handout 01.08 - Station Card Mug Cake.md or Handout 01.08 - Station Card Scrambled Egg Tacos.md
- Day 2, the flowchart on the board in five-minute blocks (from the slides), a visible timer, aprons and hair ties, oven mitts, a folded paper towel per mug, the clean-up zone chart taped at each station.
- Day 2, Lab Reflection, one per student: Handout 01.08 - Lab Reflection.md
- Day 2, the Lab Rubric on a clipboard: Rubric 01 - Lab Rubric.md (one group grid for three stations)
- Groceries, per station of seven (both recipes make enough for seven to eat; see the cost table in Teacher notes):

- Mug Cake with Hand-Whipped Cream (4 mugs, pairs share): 3/4 c flour, 3/4 c sugar, 1/2 c unsweetened cocoa, 1 tsp baking powder, 1/4 tsp salt, 4 eggs (pre-cracked into a bowl by the teacher), 3/4 c milk, 3/4 c vegetable oil, 1 tsp vanilla, 1/2 c cold heavy cream, 2 Tbsp powdered sugar, 2 Tbsp mini chocolate chips (optional garnish). Tools: 4 microwave-safe ceramic mugs, 1 medium bowl for the cream (chilled), 1 small bowl for the eggs, 1 whisk, 4 spoons, dry measuring cups, liquid measuring cup, measuring spoons, a straight edge, 8 paper bowls, 8 spoons, paper towels.
- Scrambled Egg Tacos (8 tacos): 8 eggs, 2 Tbsp butter, 1/2 bag (8 oz) frozen pepper and onion blend, 8 flour tortillas, 1 c shredded cheese, salt and pepper. Tools: 2 skillets, 2 spatulas, 1 large bowl, 1 whisk or fork, measuring spoons, a plate and a damp paper towel for the tortillas, 8 plates, 8 forks, napkins.
- Slides: Slides 01.08 - Lab 1 Mug Cake or Scrambled Egg Tacos.md (Day 1 and Day 2 marked)
- Setup notes: Day 1, stage Stations A and B before class; put the answer sheets face down. Day 2 (Mug Cake): test the mugs in the microwave the day before; pre-measure the cocoa into a small cup per station (messy and slow for students; Sal's note); crack the eggs into a small bowl per station before class (shell disasters stay out of the mugs); keep the cream in the fridge until minute 15. Day 2 (Tacos): do not preheat anything; students manage the stove with the teacher standing at the stove row; the teacher's hand is the only hand on an oven door all year (the tacos need no oven). Both: allergy list checked against the station card the day before (egg, dairy, wheat), substitutions ready (see Differentiation), grocery bags at each station, drawer map checked.

Pre-assessment

Lessons 1.5 to 1.7 exit cards and the Silent Measurement Challenge scores. Day 1 is itself the summative for tools and measuring, so spread the strongest measurers across the three stations when you assign roles.

Do now and hook (Time: Day 1, 4 min; Day 2, 3 min inside the prep phase)

Day 1, on the board: "Tomorrow you cook. Write the one job you want at your station and one reason you would be good at it." Debrief: no share; collect the cards and use them to assign roles in Step 1. Hook: "Today you prove you know the tools and can measure. Then I hand you a role card. Nobody cooks tomorrow without both."

Day 2, on the board: "Wash hands. Apron and hair tie on. Role card in your pocket. Check the drawer map. Then stand at your station with your hands empty. The timer starts when every station is standing." Hook: the timer. Forty minutes on the board.

Procedure

Step	Teacher will	Students will	Time
Day 1, 1. Direct instruction: roles	Show the flowchart in five-minute	Read their role card silently. Find the	8 min

and the flowchart	blocks on the slide. Name the four phases and the times (prep 0 to 10, cook 10 to 28, plate and eat 28 to 35, clean 35 to 40). Show the eight roles on one slide: four core roles at every station and expansion roles that turn on at five, six, and seven students. Hand each student a role card, using the do now cards and the Challenge scores to spread skills. Explain the rotation: three stations, eight minutes each, everyone does all three.	two people at their station who tag in with them (the tag-in note on the card). Move to their first rotation station.	
Day 1, 2. Rotation, three stations (the performance check and the lab prep)	Station A (self-run): students identify ten numbered tools and answer five recipe questions on the answer sheet. Station B (self-run, teacher weighs after class): students measure four items into four labeled cups and leave them on the tray with their name. Station C (teacher-run, one station group of seven at a time): read the station card aloud together, walk the mise en place (every tool from the	Do the three stations in turn. At Station C, each student says their role's first prep task out loud and touches the tool they will use.	24 min

	drawer map to the counter, every ingredient named, nothing opened), run the sanitation routine once (hands, apron, hair, counter wipe, where the trash goes), and answer role questions. Rotate on the timer with the reset cue.		
Day 2, Prep phase (0 to 10)	Start the timer when every station is standing. Walk the room once, checking aprons, hair, and hands. Stay at the stove row for the tacos. Say nothing about the recipe unless asked; the station card and role cards are the teacher now.	Mug Cake: Prep Cook measures the dry ingredients into four mugs (flour, sugar, cocoa, baking powder, salt); Helper Cook measures the wet (milk, oil, vanilla) into the liquid measuring cup; Head Cook checks each mug against the card; Second Cook sets the chilled bowl and whisk, cream stays in the fridge; Station Manager lays out the eight bowls and spoons and clears trash; Toppings Chief portions the powdered sugar and chips; Plate Builder labels the mugs 1 to 4 with tape. Tacos: Head Cook and Helper Cook crack and beat the eggs; Second Cook opens the vegetables and	10 min

		sets skillet 2; Prep Cook stacks the tortillas under a damp paper towel; Station Manager sets both skillets with spatulas; Toppings Chief portions the cheese; Plate Builder lays out plates, forks, napkins. Everyone: mise en place complete before any heat.	
Day 2, Cook phase (10 to 28)	Mug Cake: watch the microwave rotation; remind the Head Cook that cakes look wet on top at 90 seconds and set as they cool; two minutes of cooling is not optional. Tacos: stand at the stove row. Watch for high heat on the egg skillet and for a pot handle turned out. Call time at 15, 20, and 25.	Mug Cake: Head Cook adds the wet to each mug and stirs 30 seconds until no dry spots show, then microwaves mug 1 for 90 seconds, then mug 2, then 3, then 4, one at a time, with the folded paper towel to carry each hot mug to the cooling spot (about minute 11 to 20). Second Cook pours the cold cream into the chilled bowl at minute 15 and starts whipping; every teammate takes a 30-second turn at the whisk, Second Cook keeps count; when soft peaks show (about 4 minutes), Toppings Chief adds the powdered sugar and the team whips 30	18 min

		more seconds. Station Manager washes the measuring tools as they free up. Tacos: Head Cook melts the butter in skillet 1 on medium-low at minute 10 and pours in the eggs at minute 12, pushing from the edges to the center every 20 seconds, off the heat while they still look slightly wet (about minute 17); Second Cook starts skillet 2 on medium at minute 10 and stirs the vegetables every minute until soft (about minute 17); Prep Cook warms the tortillas in the microwave under the damp towel for 30 seconds at minute 20; Station Manager clears eggshells and empty bags and washes prep dishes; Toppings Chief and Plate Builder set the assembly line.	
Day 2, Plate and eat (28 to 35)	Walk the room. Ask one question per station from the “deepen” list while they eat. Score the rubric on the clipboard as you go.	Mug Cake: Plate Builder spoons each cake into two paper bowls (eight halves); Toppings Chief tops each with whipped cream and chips; everyone eats; the extra half is	7 min

		for the teacher or an absent teammate. Tacos: assembly line, Plate Builder holds the tortilla, Head Cook adds eggs, Second Cook adds vegetables, Toppings Chief adds cheese; everyone eats.	
Day 2, Clean (35 to 40)	Call “clean” at 35. Check each station against the station check on the clean-up zone chart. Sign off on each station only when every line is done. Nobody leaves until all three stations are signed.	Each pair works its clean-up zone (stove or microwave and pans; counters and supplies; dishes and sink; floor and trash). Station Manager and Time Keeper (or Station Manager alone at seven) walk the station check: burners off, microwave wiped, surfaces wiped, dishes dry and in the drawer per the map, floor swept, trash out, fridge closed.	5 min

Questions to ask

Monitor understanding:

- What is your role’s first job in the prep phase? What tool do you need for it?
- Why does the cream stay in the fridge until minute 15?
- The eggs still look wet. Do you keep cooking or take them off? Why?
- Where does the whisk go when you are done with it?

Deepen learning:

- The card says the cake will look underdone at 90 seconds. Why would a recipe writer tell you that?

- Whipping by hand took four minutes and everyone's arm. What is a mixer doing in those four minutes, and why did we not use one today?
- Your station finished plating at minute 31 and another finished at minute 27. What did the faster station do differently?
- A dozen eggs was about \$3.49 and fed this whole station. What does that tell you about eggs as a protein? (This previews Lesson 1.9 and the \$40 project.)

Check for understanding

Day 1: the performance check itself (Stations A and B) and, at Station C, each student saying the first prep task for their role and touching the tool; a "got it" is the right task and the right tool without looking at the card. Day 2: the clipboard rubric during plate and eat, and the "what does done look like" checklist on the station card, which the team checks itself at the end of each phase.

Closure (Time: Day 1, 4 min; Day 2, 2 min inside the clean phase)

Day 1: one sentence on the exit card: "My role tomorrow is . **My first job is** . My safety rule is ____." Two students read theirs. Sort into "got it" and "needs more"; the "needs more" students get a two-minute check-in at the start of Day 2 before the timer starts.

Day 2: the station check is the closure. When the teacher signs a station, the Station Manager reads the team's answer to "what did done look like today?" in one sentence. The Lab Reflection handout goes home or is completed in the first five minutes of Lesson 1.9.

[Sal: your reflection sheet was done in class; pick what fits the period.]

Differentiation and supports

- ELL: the station card has a picture next to each step and the abbreviations spelled out; role cards are short and phase-based so a student can follow them by scanning; the flowchart is visual; the phrases "behind you," "hot," "done," and "help" are on the station card in Turkish, Portuguese, and Spanish (see Vocabulary 01.md). Pair an ELL student with a role that has a tag-in partner (Helper Cook with Head Cook).
- IEP and 504 (general): a student who should avoid heat takes Second Cook (whipped cream) in the Mug Cake or Prep Cook, Toppings Chief, or Plate Builder in the Tacos, all with no stove time; a large visual timer; the role card is a printed checklist to tick; a student who cannot stand for 40 minutes works the Toppings or Plate role from a stool at the counter; sensory note: the microwave beep and the skillet sizzle are announced before they happen.
- Grade 6 support: the Mug Cake is the grade 6 recipe (microwave only, no stove, no knife of any kind). The station card for grade 6 lists the four mugs as "Mug 1: flour 3 Tbsp, sugar 3 Tbsp..." one mug at a time instead of a scaled table.
- Grade 8 stretch: the Tacos recipe, two burners at once, with the Time Keeper role active as a coordinator; stretch students compute the cost per taco from the receipt and write one change that would cut the cost by a dollar per station without changing the taste much (this previews Topic 1.4).

- Allergy substitutions: egg allergy in the Mug Cake, replace the egg in that mug with 3 Tbsp of applesauce or 1 Tbsp ground flax in 3 Tbsp water; egg allergy in the Tacos, that student works the vegetable skillet and plating and eats a cheese and vegetable taco; dairy, plant milk and oil-based spread, skip the cheese and cream for that portion; wheat, corn tortillas and a gluten-free flour blend in one labeled mug. *[Sal: confirm each substitution with the nurse's allergy list, not the student's word.]*
- UDL checkpoint used: multiple means of engagement (choice of recipe, a role that fits each student, a timer and a scoreboard-style station check) and multiple means of action and expression (the role card can be followed by reading, by picture, or by the tag-in partner's example).
- No-kitchen alternative: Overnight Oats in a Cup, run with the same eight roles, the same four phases, and the same station check. Per station of seven: 3 1/2 c rolled oats, 3 1/2 c milk, 7 Tbsp yogurt (or 7 more Tbsp milk), 7 tsp honey or sugar, 1 tsp cinnamon, 2 bananas (sliced with a butter knife by the Prep Cook), a handful of raisins. Each student measures their own 1/2 c oats, 1/2 c milk, 1 Tbsp yogurt, 1 tsp sweetener into a lidded cup, adds toppings, stirs, and labels it; the cups go into any fridge (or a cooler) and get eaten the next day, or students take them home. Prep 0 to 10 is the same; "cook" 10 to 28 becomes measure, assemble, and label; plate 28 to 35 is a tasting of one shared demo cup made the day before; clean 35 to 40 is the same. A second no-cook option is a measured trail mix (1/4 c cereal, 2 Tbsp pretzels, 1 Tbsp raisins, 1 Tbsp chocolate chips, 1 Tbsp sunflower seeds per bag; nut-free) where the measuring itself is the lab and every bag is weighed against a target the way the Silent Challenge was.

Assessment

Objective	Standards met	Learning task	Assessment (formative or summative; tool)
1. Describe own role, tasks by phase, and the safety rule	HSW 4. c), d), e); CIR 3. f); Std 1 PI B	Role cards and Station C, Day 1 Step 2; Day 1 exit card	Formative; exit card sorted; the Day 1 rotation also delivers the summative Tools and Measuring Performance Check (Assessment 01.2, Stations A and B)
2. Prepare the recipe: measure accurately, follow the steps, use each tool safely	N&W 1. b), c), d); Std 1 PI A; National FCS 14.3.3, 8.5.3; CDOS 3a Interpersonal Skills	The lab, Day 2, all four phases	Summative; Rubric 01 - Lab Rubric.md, three objective rows plus the safety and sanitation row, scored on the clipboard during

			plate, eat, and clean
3. Evaluate the team's work against the flowchart and recommend one change	CIR 3. f); HSW 4. e); CDOS 3a Interpersonal Skills	Lab Reflection, after Day 2	Formative; Handout 01.08 - Lab Reflection.md scored complete, partial, or missing; the recommendations open Lab 2 (Lesson 1.13)

Homework

The Lab Reflection, if not finished in class. Optional: make the mug cake at home for someone and report what you changed.

Connections

Science: the science connection on Sal's recipe sheet (baking powder releases carbon dioxide when it meets liquid and heat, which lifts the cake; fat in cream traps air when it is beaten, which is what makes whipped cream stand up) is a five-minute talk during plate and eat and a handoff to the science teacher. Math: cost per serving from the receipt. Health: the eggs-as-protein question previews Lesson 1.9, where the health teacher's nutrient list and the FACS list get lined up.

Sources

- NYS Middle Level CTE FACS Content Module 05, Nutrition and Wellness (nyctecenter.org, June 2018), lines 1. b), 1. c), and 1. d). Copy in 02 Standards/NYS Module PDFs/.
- NYS Middle Level CTE Theme Module 04, Health, Safety, and Wellness, lines 4. c), 4. d), and 4. e); Theme Module 02, Communication and Interpersonal Relationships, line 3. f). Same folder.
- NYS Learning Standards for Health, Physical Education, and Family and Consumer Sciences (1996), Standard 1, Intermediate, FACS strand, Performance Indicators A and B. Wording per 02 Standards/STANDARDS SOURCES - web research.md, section 2. *[Sal: confirm against the NYSED PDF.]*
- CDOS Intermediate Standard 3a, Interpersonal Skills. Same file.
- National Standards for Family and Consumer Sciences Education 3.0 (LEAD FCS Education, 2018), competencies 14.3.3 and 8.5.3.
- Sal's own materials: the Mug Cake with Hand-Whipped Cream teacher recipe sheet (recipe_sheets_2026-05/education_teachingwork_6th_grade_mug_cake_recipe_sheet_2026_05.docx: the flowchart in blocks, ingredients per station, the eight prep notes, the science connection, and the King Kullen cost) and the Scrambled Egg Tacos lesson package (education_teaching_facs_lesson3_scrambledeggtacos_2026_03.docx: the four-

phase workflow, the Gantt chart by role, the clean-up zones, the eight role cards with tag-in notes, and the reflection). Both in Education/TeachingWork/LessonPlans. Rewritten here for a station of seven and with the standards replaced.

Teacher notes

- If Day 1 runs short, the recipe questions at Station A can move to the first five minutes of Day 2 (before the timer) or become the do now of Lesson 1.9. Never cut Station C; the mise en place walk is what makes Day 2 start on time.
- If Day 2 runs short (a fire drill, a late start), the Mug Cake still works in 30 minutes: skip the whipped cream, top with chips. The Tacos do not compress; if the period is under 35 minutes, cook the eggs only and skip the vegetables.
- Sal's mug cake prep notes, kept as written because they are right: pre-measure the cocoa; crack the eggs into a bowl first; cream stays cold until the whipping step; ceramic mugs only, tested the day before; one mug at a time per microwave; the mug is hot, use a folded paper towel; whip the cream alone first, then add the sugar; if whipping by hand stalls, pair up, one holds the bowl and one whisks.
- Common mistake (Mug Cake): the Head Cook stirs the batter with the dry ingredients still stuck in the bottom of the mug. Say "scrape the bottom" on the station card and once out loud.
- Common mistake (Tacos): the egg skillet on high. Stand at the stove row and say "medium-low" as they turn the knob. Eggs come off while they look wet.
- Sal's taco package included a no-cook banana pudding dessert. It is dropped from Lab 1 to keep the first lab to one dish and one clock; it fits as the grade 8 dessert in Lab 2 or the Budget Meal Lab.
- The Time Keeper role is written for eight students. At seven, the Station Manager keeps time, and the card says so.
- Per-station cost estimate (King Kullen, Bay Shore, September 2026 estimates; Sal's May 2026 circular priced the mug cake at about \$7.42 per station). *[Sal: verify against the circular the week you shop.]*

Recipe	What one station of seven uses	Estimated cost per station	Per class of three stations (whole packages)	Notes
Mug Cake with Hand-Whipped Cream (4 mugs)	4 eggs, 3/4 c milk, 3/4 c oil, 3/4 c flour, 3/4 c sugar, 1/2 c cocoa, 1 tsp baking powder, 1/4 tsp salt, 1 tsp vanilla, 1/2 c heavy cream, 2 Tbsp powdered	about \$6 to \$7.50	about \$18 to \$22: 1 dozen eggs (\$3.49), 1 quart milk (\$1.79), 2 half-pints heavy cream (\$4.98), 1 bag mini chips (\$3.49, optional), plus pantry draw	Pantry startup, one time, covers a full lab day of four classes and later labs: 5 lb flour (\$3.49), 4 lb sugar (\$3.99), 8 oz cocoa (\$4.49), baking powder

	sugar, 2 Tbsp mini chips (optional)			(\$2.49), vanilla (\$4.99), powdered sugar (\$2.49), 48 oz oil (\$4.49), salt (\$1.29), about \$28. Add 4 ceramic mugs per station if the room has none (about \$1 each at a dollar store).
Scrambled Egg Tacos (8 tacos)	8 eggs, 2 Tbsp butter, 1/2 bag frozen pepper and onion, 8 flour tortillas, 1 c shredded cheese, salt and pepper	about \$9 to \$10.50	about \$27: 2 dozen eggs (\$6.98), 3 packs of 10 tortillas (\$7.47), 2 bags frozen pepper and onion (\$4.98), 2 bags 8 oz shredded cheese (\$5.98), 1 stick butter (\$1.49)	Store-brand swaps from Sal's package: corn tortillas (about \$1.99), store-brand cheddar (about \$2.49), frozen mixed vegetables (about \$1.79). Most unprepared grocery food is exempt from NYS sales tax.
No-kitchen: Overnight Oats in a Cup (7 cups)	3 1/2 c oats, 3 1/2 c milk, 7 Tbsp yogurt, 7 tsp honey or sugar, cinnamon, 2 bananas, raisins, 7 lidded cups	about \$5 to \$6	about \$16: 1 large canister oats (\$3.99), 1 gallon milk (\$3.99), 1 quart yogurt (\$3.49), 6 bananas (\$1.50), raisins (\$2.49), cups (\$1)	Honey is a pantry item; sugar works.

- Both recipes are under the \$20 per station cap. The unit budget line for Lab 1 should carry the higher of the two per class plus the one-time pantry startup.