

Lesson 1.11: Label Detective

Unit: Unit 1, Kitchen Skills and Smart Eating (Nutrition and Wellness) **Topic:** 1.3 Nutrients, MyPlate, and Labels **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 **Room:** Either (classroom or FACS lab tables; no cooking)

Standards

- NYS module line: NYS N&W 2. Nutrition Across the Lifespan a) Identify nutrient groups, common sources of nutrients, and nutrient requirements across the lifespan
- NYS module line: NYS N&W 2. Nutrition Across the Lifespan c) Identify sources of authentic and credible dietary information
- CTE theme line: CTE FCL 4. Buying Goods and Services f) Apply a decision-making model to maximize consumer satisfaction when purchasing goods and services
- CTE theme line: CTE FCL 4. Buying Goods and Services e) Explain the influence of peers, advertising, technology, and the economy on consumer decisions
- 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: 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.
- CDOS Standard 3a Universal Foundation Skills: Managing Information
- National FCS 3.0: 14.2.4 Examine sources of food and nutrition information, food labels included, for what they say about health.
- National FCS 3.0: 3.5.6 Judge the labels, packaging, and support materials that come with consumer goods.

Note on the theme lines: the FCL 4. Buying Goods and Services topic has no line that says “labels.” Line f) (a decision-making model for purchasing) is what Day 1 and the product comparison teach; line e) (advertising) is what Day 2’s ad critique teaches. Both are quoted verbatim from the theme module. National FCS 3.3.4 was checked and does not fit (it reads “Compare investment and savings alternatives”); 3.5.6 is the consumer services competency on labeling and is used instead.

Health class coordination

Health class typically covers: “read the label” as a one-line tip, and sometimes the calories line. Health rarely gives students a real package to hold.

This lesson goes further: two days on the Nutrition Facts panel itself, with five real packages per station on Day 1, percent daily value math, the 5 and 20 rule, and on Day 2 the tricks companies use (serving size games, “natural,” front-of-package claims) and a critique

of a misleading ad using the label as evidence. This is the consumer skill FACS owns. *[Sal: send the health teacher the Spot the Trick handout so they can point to it instead of repeating it.]*

Enduring understanding and essential question

Big idea: The front of the package is an ad. The back of the package is the evidence. A label detective reads the back first. **Essential question:** Can a food be “healthy” on the front and not on the back?

Objectives

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

1. (Low: remember and understand) Given a Nutrition Facts label, identify and label its key parts (serving size, servings per container, calories, percent daily value, added sugars, sodium, fiber) and list the serving size, calories, and three nutrients from it.
2. (Mid: apply and analyze) Given two food labels, compare calories, added sugars, and sodium to decide which is the better choice, and calculate the total calories and sodium eaten if the whole package is eaten.
3. (High: evaluate) Given a food advertisement and the product’s Nutrition Facts label, critique the advertisement using at least three pieces of evidence from the label.

(These are Sal’s tiered objectives from his Nutrition Labels planning notes, rewritten to the lesson template. His other High objective, design a mock Nutrition Facts label for a healthy snack, is the grade 8 stretch on Day 2.)

Vocabulary

Tier 2 (general academic): evidence, claim, compare, critique, misleading Tier 3 (FACS): Nutrition Facts, serving size, servings per container, percent daily value (% DV), added sugars, sodium, dietary fiber. See the unit vocabulary list for Turkish, Portuguese, and Spanish.

Materials and setup

- Day 1: five clean, empty food packages per station (three stations, fifteen packages total). Mix them so every station has at least one cereal box, one chip or cracker bag, one canned item, one drink bottle, and one snack bar box. *[Sal: collect these from home for two weeks before the lesson; rinse and dry them. Ask students to bring empty packages the week before; a package with a name on it is fine, a package with student writing on it is not.]*
- Label Scavenger Hunt handout, one per student: Handout 01.11 - Label Scavenger Hunt.md
- Day 2: Spot the Trick handout, one per student: Handout 01.11 - Spot the Trick.md (two product comparisons and one advertisement with full label data written out)
- One large printed Nutrition Facts label (poster size) or the same on the screen
- Calculators or phones on calculator only, one per pair

- Slides: Slides 01.11 - Label Detective.md (outline; build the deck from it; Day 1 and Day 2 are labeled)
- Setup notes: stage five packages at each station before class on Day 1. Allergy check: the packages are empty and clean; no food is eaten either day. A student with a severe allergy should not handle a package that held that allergen; swap it for another station.

Pre-assessment

Yesterday's exit cards on serving versus portion (Lesson 1.10). If the "needs more" pile was more than a third of the class, run the serving size slide on Day 1 for the full three minutes and use the chip bag example again. The Lesson 0.5 pre-assessment item on serving size is the earlier read.

Do now and hook (Time: Day 1, 5 min; Day 2, 4 min)

Day 1, on the board: "Look at the package on your table. Without turning it over, write: is this a healthy food? Yes or no, and one reason." Debrief: hands up for yes, hands up for no. Then the hook: "Everything you just used to decide came from the front. The front is an ad. Turn it over. The back is the evidence. Today you learn to read the evidence."

Day 2, on the board: "A cereal box says 'Made with whole grain.' Does that mean it is healthy? Write yes, no, or it depends, and what you would need to see to be sure." Debrief in one minute: most will say "it depends." Hook: "Good. Today you find out what it depends on, and then you catch a company in the act."

Procedure

Day 1

Step	Teacher will	Students will	Time
1. Direct instruction: the label tour	Walk the poster label top to bottom. Serving size (the amount the numbers describe, set by the government, not the company), servings per container, calories (big and bold on purpose), the nutrients to get less of (saturated fat, sodium, added sugars), the nutrients to get more of (fiber,	Label the blank label diagram on the handout as each part is named. Write the serving size, calories, and three nutrients from the poster label.	9 min

	vitamin D, calcium, iron, potassium), and percent daily value (how much of a day's worth one serving gives, based on 2,000 calories). Show the "added sugars" line and say why it was added in 2020: it separates the sugar in fruit from the sugar the company put in.		
2. Direct instruction: the 5 and 20 rule	Say the rule: 5% DV or less is low; 20% DV or more is high. Low is good for the "get less" list; high is good for the "get more" list. Do two examples on the poster label out loud. Then the servings trap: "If this bag has 8 servings and you eat the bag, multiply everything by 8." Do it once for sodium.	Do the two examples on the handout. Multiply calories and sodium by servings per container for the poster label.	4 min
3. Learning activity: the Label Scavenger Hunt	Send teams to stations with five packages. The hunt has two parts: record the seven facts for each package, then answer the six hunt questions (most sodium, fewest servings, a 20% or more, a 0 g added sugars, the most fiber, and the one you would pick for a	Read five real labels. Fill the table. Answer the six hunt questions with the package name and the number as evidence.	15 min

	snack and why). Circulate with the clipboard. Rotate stations at 7 minutes if the room has three stations and you want every team to see fifteen packages; otherwise stay put.		
4. Share	One question per team: read the answer and the evidence. Write the class “most sodium per serving” and “most added sugars” on the board and leave them up for Day 2.	Reporters share. Class checks if the evidence is a number, not an opinion.	3 min

Day 2

Step	Teacher will	Students will	Time
1. Direct instruction: five tricks	Show one slide per trick: (1) the serving size game (a small bottle that is “2.5 servings”); (2) “natural,” which the FDA has never formally defined for most foods, so it can mean almost anything; (3) front-of-package claims that are true but beside the point (“fat free” on candy, “made with real fruit” on a snack that is mostly corn syrup, “multigrain” which is not “whole grain”); (4) the	Write the five tricks and the line on the label that catches each one on the handout.	8 min

	health halo (a green package, a leaf, the word “wellness”); (5) “no sugar added” versus “sugar free” versus “reduced sugar.” For each trick, the fix is the same: turn it over and find the line.		
2. Learning activity: Spot the Trick, two comparisons	Pairs work the two comparisons on the handout: 100% orange juice versus an orange drink, and veggie straws versus potato chips. For each: fill the compare table, circle the better choice, name the trick on the front, and compute the whole-container totals.	Compare, compute, decide, and write one sentence with two numbers as evidence for each comparison.	12 min
3. Learning activity: critique the ad	Show the SunBurst Fruit Bites ad on the slide and on the handout with its full label and ingredient list. Task: write a four-sentence critique. Sentence 1, what the ad claims. Sentences 2 to 4, three pieces of evidence from the label or ingredient list that the claim hides. Model one sentence: “The ad says ‘made with real fruit,’ but the first ingredient is corn syrup.”	Write the critique. Grade 8 stretch students also design the honest mock label (see Differentiation).	10 min

4. Share	Three students read their critiques. Class votes: would the company let this critique run as a commercial? Why not?	Volunteers read. Class names the strongest piece of evidence.	2 min
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Questions to ask

Monitor understanding:

- What is the serving size on this package? How many servings are in it?
- Is 25% DV sodium high or low? What about 4% DV fiber?
- If a bottle says 2.5 servings and you drink the bottle, what do you multiply by?

Deepen learning:

- Why would a company make the serving size smaller than what people actually eat?
- “Natural” is on the front. What would you need to see on the back to believe it?
- Who is the added sugars line protecting? Who did not want it on the label?

Check for understanding

Day 1, clipboard checklist during Step 3: for each team, yes or no on “reads serving size before calories,” “gives a number as evidence, not an adjective,” and “found the 20% or more item correctly.” Day 2, during Step 2: yes or no on “computed the whole-container total correctly” and “named the trick, not just the better product.” A student with all yeses is ready for the Label Reading Quiz. A student who calls a product “unhealthy” with no number gets the question “which line says that?”

Closure (Time: 4 min each day)

Day 1, 3-2-1 exit card: 3 parts of a Nutrition Facts label and what each tells you, 2 numbers from a package you read today (with the package name), 1 question you still have about labels. Three students read one line aloud. Sort into “got it” and “needs more.”

Day 2, exit ticket: one product from today, the trick on its front, and the one label line that catches it. Write one sentence. Three students read aloud. The “needs more” pile decides which trick gets a review slide at the start of Lesson 1.12.

Differentiation and supports

- ELL: the label diagram on the handout is labeled in English with a word bank in Turkish, Portuguese, and Spanish (see Vocabulary 01.md); the poster label stays on the screen both days; sentence frame for the critique: “The ad says , **but the label shows** .” Pair each ELL student with a partner who can point to the line on the package.

- IEP and 504 (general): the hunt table asks for three packages instead of five on request; calculators for every computation; the critique can be spoken to the teacher and recorded in three bullet points instead of four sentences; a student who cannot rotate stations gets five packages brought to the seat.
- Grade 6 support: Day 1, record five facts per package (skip added sugars and fiber) and answer four hunt questions; Day 2, do comparison 1 only, then the critique with two pieces of evidence.
- Grade 8 stretch: Day 1, also compute the percent daily value for a nutrient that the package gives only in grams (fiber: grams divided by 28, times 100). Day 2, after the critique, design an honest mock Nutrition Facts label for a snack that could truthfully say “made with real fruit” (this is Sal’s third High objective).
- UDL checkpoint used: multiple means of representation (the poster label, real packages in hand, and the same data written out on the handout) and multiple means of action and expression (evidence can be shown by pointing, computing, or writing).
- No-kitchen or no-machine alternative: not needed; no cooking. If real packages cannot be collected, the Scavenger Hunt handout includes five written-out labels on its last page for each station to use instead.

Assessment

Objective	Standards met	Learning task	Assessment (formative or summative; tool)
1. Identify the parts of a label and list its facts	N&W 2. a); Std 1 PI A; National FCS 14.2.4	Label diagram and hunt table, Day 1 Steps 1 and 3	Formative; handout checked for a complete diagram and five package rows; summative on the Label Reading Quiz items 1 to 6
2. Compare two labels and compute whole-container totals	N&W 2. a) and c); FCL 4. f); CDOS 3a Managing Information; National FCS 3.5.6	Spot the Trick comparisons, Day 2 Step 2	Formative; clipboard checklist; summative on the Label Reading Quiz items 7 to 11
3. Critique a misleading ad with label evidence	N&W 2. c); FCL 4. e); National FCS 14.2.4	Ad critique, Day 2 Step 3	Formative; critique scored complete (claim plus three evidence sentences), partial, or missing; summative on the Label Reading Quiz item 12

The Label Reading Quiz (Assessment 01.3 - Label Reading Quiz.md) closes the topic. It is given in the first 15 minutes of the period after Lab 2 (the opening of Lesson 1.14), since the seven topic days are all lesson days.

Homework

Day 1: none. Day 2, optional: bring in one empty package from home whose front makes a claim (any claim). Be ready to say what the back shows. These packages feed the Lesson 1.12 do now.

Connections

Inside the building: the math teacher. Percent daily value, multiplying by servings per container, and grams divided by 28 are the same ratio and percent skills grade 7 math teaches. FACS gives math a real reason to compute; math gives FACS students who can already do the percent. ELA: the ad critique is a claim and evidence paragraph, the same shape ELA teaches for argument writing.

Sources

- NYS Middle Level CTE FACS Content Module 05, Nutrition and Wellness (nyctecenter.org, June 2018), lines 2. a) and 2. c). Copy in 02 Standards/NYS Module PDFs/.
- NYS Middle Level CTE Theme Module 03, Financial and Consumer Literacy, lines 4. e) and 4. f). Same folder.
- NYS Learning Standards for Health, Physical Education, and Family and Consumer Sciences (1996), Standard 1, Intermediate, FACS strand. Wording per 02 Standards/STANDARDS SOURCES - web research.md, section 2. *[Sal: confirm against the NYSED PDF.]*
- CDOS Standard 3a, Managing Information. Same file.
- National Standards for Family and Consumer Sciences Education 3.0 (LEAD FCS Education, 2018), competencies 14.2.4 and 3.5.6.
- Label facts: U.S. Food and Drug Administration, “How to Understand and Use the Nutrition Facts Label” (fda.gov), including the 5% and 20% DV rule and the daily values used on the 2020 label (sodium 2,300 mg; added sugars 50 g; dietary fiber 28 g; saturated fat 20 g). FDA’s position on “natural”: fda.gov, “Use of the Term Natural on Food Labeling.” *[Sal: FDA proposed front-of-package rules in 2025; check whether they are final before this lesson runs and add a slide if they are.]*
- Sal’s own materials: FNES538_notes_NextWeek-NutritionLabels-Tiered_2026-03.docx (his tiered Bloom’s objectives for a Nutrition Labels lesson) supplied the three objectives and the grade 8 stretch.

Teacher notes

- If Day 1 runs short, cut Step 4 and take the share in the closure. If Day 2 runs short, cut comparison 2 (the chips) and keep the ad critique; the critique is Objective 3 and the quiz item.

- Common mistake: students read the calories first and stop. Say the order every time: serving size, servings per container, then calories. The serving size decides whether every other number is real.
- Second common mistake: students treat “% DV” as “percent of the food.” Say: “It is percent of your whole day, if your day is 2,000 calories.”
- *[Sal: the packages that work best are the ones your students actually eat. A sports drink, a family size chip bag, and a “kids” yogurt are usually the three that surprise them the most.]*
- Keep the ad critiques. The best three become the review slide before the Label Reading Quiz, and the whole set is a strong artifact for a principal walk-through: claim, evidence, evidence, evidence.