Lesson 7.8: Know Your Customer and Price It

Unit: Unit 7, Launch: Career Readiness and FACS Shark Tank (capstone; draws on Individual Growth and Life Readiness) **Topic:** 7.2 FACS Shark Tank **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 the customer and Day 2 the money. **Scheduling note:** the year calendar gives Unit 7 thirteen periods and places this lesson on one of them (day 175). Both days are written in full below, and a **one-period version** follows the two procedure tables. In the one-period version the team's own numbers page is finished in the Numbers Clinic that opens Lesson 7.10 Day 1, which is written into that lesson. If your school's calendar gives Unit 7 fourteen periods, run both days here and everything after shifts one cell right; that is the better version of the unit. **Room:** Classroom

Standards

- NYS module line: NYS IGLR 4. Financial Readiness b) Create and follow a budget
- NYS module line: NYS IGLR 5. Career Pathways b) Examine the skills needed to become an entrepreneur
- CTE theme line: CTE FCL 4. Buying Goods and Services c) Develop a spending and savings plan (budget) based on income and expenses
- CTE theme line: CTE PSI 2. Design Process (Proactive) a) b. Defining criteria that must be met through the finished design
- CTE theme line: CTE CIR 2. Listening c) Show understanding of active listening and feedback techniques
- NYS FACS Learning Standard 3 (Intermediate), Key Idea: Students will understand and be able to manage personal resources of talent, time, energy, and money and make effective decisions in order to balance their obligations to work, family, and self.; Performance Indicator: Students are able to budget their time and money.
- CDOS Standard 2 Integrated Learning: Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.
- CDOS Standard 3a Universal Foundation Skills: Basic Skills. Students listen to and read the ideas of others and analyze what they hear and read; acquire and use information from a variety of sources; and apply a combination of mathematical operations to solve problems in oral or written form.
- National FCS 3.0: 2.6.2 Use sound money management principles in personal and family finances.
- National FCS 3.0: 2.5.1 Examine how resources get used when individuals, families, and communities choose among needs and wants.

Enduring understanding and essential question

Big idea: You do not get to decide whether your idea is good. Your customer does, and you find out by asking them before you build. Then the numbers tell you whether the answer they gave you is a business. **Essential question:** How many do we have to sell before we stop losing money?

Objectives

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

1. (Low) Given the customer profile template, describe their target customer in five specifics (who, age or stage, what they already do about the problem, what they can spend, where they would hear about it), and define unit cost, price, margin, and break-even.
2. (Mid) Conduct three customer interviews with the same three questions, record the answers in the customer's own words, and compute unit cost, price, margin per unit, and break-even in units for their own idea.
3. (High) Evaluate what the three interviews changed about the idea and revise one element of it in writing, and build a one-month projection that names the number of units sold and defends it with a reason that is not a guess.

Vocabulary

Tier 2 (general academic): profile, evidence, revise, project (verb), defend Tier 3 (FACS): customer, target customer, unit cost, price, margin, break-even, projection, revenue, cost, profit. See Vocabulary 07.md.

Materials and setup

- Handout 07.08 - Customer Profile Interview Sheet and Numbers Page.md, one per student. Page 1 is the customer profile and the three interview blocks; page 2 is the numbers page.
- Team folders from Lesson 7.7 with the signed filter sheets
- Calculators, one per team minimum, and available to every student without asking
- Project 07 - FACS Shark Tank.md in hand from yesterday
- Slides: Slides 07.08 - Know Your Customer and Price It (Day 1 and Day 2 labeled)
- A price reference for the worked example: the Unit 6 supermarket circular, or a printout of prices for craft and food supplies. *[Sal: the Unit 6 circular is already in the room and students already know how to read it. Reuse it.]*
- Timer with a visible count for the interview rotation
- Setup notes: Day 1 needs a rotation plan. Ten teams of three means that on the teacher's signal, one member of each team stands and moves two tables clockwise, so every team always has a stranger in front of it. Write the rotation on the board. Day 2 needs the worked example numbers on the board before the bell so no class time goes to writing them. Allergy check: none, even for a food idea; nothing is tasted this week until Lesson 7.11 and only with the standing allergen procedure from Unit 1.

Pre-assessment

Day 1: the three-line “what we think we know” box at the top of the customer profile, filled before any interview happens. Teams write who they think the customer is, what they think the customer will pay, and what they think the customer already does about the problem. That box is the before picture and the whole point of Day 1 is that at least one of the three lines turns out to be wrong. Day 2: the Lesson 7.6 exit card profit formula, already checked. A class where more than a quarter got it wrong opens Day 2 with a three-minute reteach using the T-shirt example again before the new vocabulary.

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

On the board: “Your team thinks somebody will pay for your idea. Name that person. Not ‘everybody.’ One person, and how you know them.”

Debrief: take four. If any team says “everybody,” say the line: “Everybody is not a customer. Everybody is what you say when you have not asked anybody.” Then the hook: “Today three people who are not on your team are going to tell you whether your idea is worth money. You are going to write down exactly what they say, including the parts you do not like.”

Procedure, Day 1: the customer

Step	Teacher will	Students will	Time
1. Direct instruction: the customer profile	Teach the five specifics with one example built live: not “people who are hungry” but “a parent picking up a child at 3:15 who has 20 minutes and $6.00 and currently buys a bag of chips at the deli.” Say the rule: a real profile names what the customer already does about the problem, because that is your actual competition.	Fill the five-line customer profile on page 1 as a team, then each member writes it on their own sheet.	8 min
2. Direct instruction: the three questions, and how to write down an answer	Give the three interview questions, which stay the same for every team: **1. Do you have this**	Copy the three questions. Practice the recording rule on one sentence the teacher says out	6 min

	problem? Tell me about the last time. 2. What do you do about it right now? 3. If this existed, what would you pay for it, and what would make you not buy it? Teach the recording rule: write the customer's words, not your summary of them. Model a bad note ("he liked it") and a good one ("he said 'I would pay two dollars but not three, and only if it fits in my bag'").	loud.	
3. Three customer interviews, rotating	Run the rotation: 3 minutes per interview, three rounds, one member of each team rotating clockwise two tables on the signal so the interviewee is never a teammate. Circulate and listen for teams selling instead of asking. Say one word when you hear it: "Ask."	Interview three stand-in customers, one at a time, using the same three questions. Write the answers in the customer's own words in the three interview blocks.	12 min
4. What changed	Give the task in one sentence: "Read your three sets of answers. Name one thing you now know that you did not know at the start of the period, and change one thing about your idea	Compare the three interviews to the "what we think we know" box. Write the one thing that changed and the one revision, and initial it as a team.	9 min

	because of it." Take four teams' answers out loud. Push the ones who say "nothing changed": "Then read me the price line. All three said the same number?"		

Day 1: do now 5 plus 8 plus 6 plus 12 plus 9 is 40, with the closure folded into Step 4.

Do now and hook, Day 2 (Time: 3 min)

On the board: "Your idea costs you something to make. Write down every single thing you would have to buy to make ONE of them. Be annoying about it. Include the tape."

Debrief: take two teams' lists and add the thing they forgot, out loud. It is always packaging, or the bag, or the sign. Then the hook: "Yesterday somebody told you what they would pay. Today you find out whether that number is enough. Some of you are about to learn that your business loses money, and finding that out on paper today is the cheapest way it will ever happen to you."

Procedure, Day 2: the money

Step	Teacher will	Students will	Time
1. Whole-class worked example	Do one example together, all the way through, on the board and on page 2 at the same time. **The example, a custom drawstring tote bag, which uses Unit 5 skills:** fabric for one bag \$1.80, cord \$0.30, thread and needle share \$0.10, a printed paper tag \$0.05. **Unit cost \$2.25.** Price charged **\$6.00. Margin per unit \$6.00 minus \$2.25 equals \$3.75.** Fixed cost for the whole run: a \$15.00	Fill the same five lines on page 2 with the teacher, in pen, labeled "EXAMPLE."	12 min

	stencil kit bought once. **Break-even in units: $15.00 divided by $3.75 equals 4 bags.** Say the sentence out loud and have the class say it back: “We stop losing money after the fourth bag.”		
2. Teams do their own numbers	Release teams to page 2 with their own idea. CFO leads and holds the calculator; CEO and CMO each write the same numbers on their own sheet, because all three have to be able to say the numbers out loud on pitch day. Circulate with two questions only: “What did you forget to count?” and “Say your break-even as a sentence.”	Compute their own unit cost line by line, set a price using the Day 1 interview answers, compute margin per unit, list any fixed cost, and compute break-even in units.	12 min
3. The one-month projection	Teach the projection in one move: units sold in a month times margin per unit, minus fixed cost, equals the month’s profit. Then add the rule that makes it honest: **the number of units has to come with a reason that is not a guess.** “We will sell 200” is a guess. “There are 88	Write the one-month projection: units, times margin, minus fixed cost, equals profit. Write the one-sentence reason for the unit number.	8 min

	students in our grade, three of our three interviewees said they would buy, so we projected 30, which is about a third" is a reason.		
4. Peer number check and hand in	Pair each team with another team. Each team reads its four numbers aloud and the other team checks the arithmetic and asks one question: "Where does that number come from?" Then collect page 2 from every team, signed by the CFO. Teams do not proceed to the deck without a signed numbers page.	Read the numbers to another team. Check the other team's arithmetic. Fix any error in red. CFO signs and hands in.	5 min

Day 2: do now 3 plus 12 plus 12 plus 8 plus 5 is 40. **The block to protect is Step 1**, because a class that does not see the worked example all the way through cannot do Step 2. If the class arrives slowly, take the minute out of Step 4 by dropping the reviewing team's second question.

One-period version (what the 13-day year calendar runs)

Step	What happens	Time
Do now and hook	Day 1's do now and hook, unchanged	4 min
1. The customer profile	Day 1 Step 1, cut to the five lines with one teacher example instead of two	6 min
2. The three questions	Day 1 Step 2, cut to the three questions and one modeled note	4 min
3. Three customer interviews	Day 1 Step 3, two rounds of 3 minutes plus a third round of 2	8 min
4. What changed	Day 1 Step 4, cut to the	5 min

	written revision with two teams sharing	
5. The numbers, worked example only	Day 2 Step 1, the tote bag example, all five lines, whole class together	11 min
Closure	The break-even sentence said aloud by every team about the example, then the assignment: your own numbers page opens Lesson 7.10	2 min

Total 40. In this version the team's own numbers page (Day 2 Steps 2 to 4) runs as the **Numbers Clinic in the first 15 minutes of Lesson 7.10 Day 1**, which is written into that lesson's procedure. The one-month projection moves to the same clinic and the peer number check happens inside Lesson 7.10 Day 2's peer review round.

Questions to ask

Monitor understanding:

- Who is your customer? Say it in five specifics, not one word.
- What does your customer already do about this problem right now?
- What is your unit cost? Read me the lines that add up to it.
- Say your break-even as a sentence starting with "We stop losing money after…"
- Where did the number of units in your projection come from?

Deepen learning:

- All three of your interviewees said a different price. What do you do with that?
- One person said they would not buy it. Is that bad news or is that the most useful thing you heard today? Make the case.
- Your margin is fifteen cents. What are the two ways to fix that, and what does each one cost you?
- Your break-even is 60 units and there are 88 people in your grade. Is that a business? What would have to be true?
- Why do real businesses fail in their first year even when people liked the product?

Check for understanding

Day 1: read over shoulders during Step 3 for the recording rule. A "got it" interview block has quotation marks in it. A "needs more" block has the word "yes" and nothing else; walk over and ask the interviewee the question again while the team writes. Day 2: the break-even sentence said out loud. Every team says it at the end of Step 1 about the example and again at the end of Step 2 about their own idea. A team that cannot say the sentence cannot use the number, and the fix is to divide out loud with the calculator in the teacher's hand.

Closure (Day 1 folded into Step 4; Day 2, 3 min of Step 4)

Day 1: each team reads the one thing that changed. Day 2: each team says its break-even sentence to the room, in order, fast. Ten sentences in ninety seconds, and the class hears ten different numbers for ten different businesses, which is the point.

Differentiation and supports

- ELL: the three interview questions are printed in Turkish, Portuguese, and Spanish on the interview sheet, from Vocabulary 07.md, so an interview may be conducted in the home language and the answers recorded in that language, with one line translated for the deck. The numbers page is labeled with the four terms in four languages. Numbers cross languages, so an ELL student can carry the CFO role fully, and the project sheet says so. Sentence frames in all four languages: “Do you have this problem?” “What do you do about it now?” “What would you pay?” and “We stop losing money after ___ units.”
- IEP and 504 (general): calculators for everyone, always, with no permission needed; the numbers page arrives with the five lines pre-labeled and only the numbers to enter; the unit cost table has six rows so nothing has to be organized from scratch; a student may record interview answers by checking a box and adding one quoted phrase rather than writing full answers; the rotation can be waived for a student who does not want to move, with interviewees coming to them instead; extended time to finish page 2 during Lesson 7.10 Day 1’s clinic, which every team has access to anyway.
- Grade 6 support: two interviews instead of three. On the numbers, grade 6 teams stop at margin per unit and are not required to compute break-even or the projection; the teacher computes break-even with them in a 90-second conference and they write the sentence. The tote bag worked example is done twice for grade 6, the second time with round numbers ($2.00 cost, $5.00 price, $12.00 stencil, break-even 4).
- Grade 8 stretch: a fourth interview with an adult outside class, done as optional homework and quoted. On the numbers, grade 8 teams compute break-even twice, once at the price they chose and once at a price one dollar lower, and write one sentence on what the price change does to the number of units they have to sell. Grade 8 teams also separate fixed from variable cost in a labeled column.
- UDL checkpoints used: multiple means of representation (the same numbers as a spoken worked example, a written table, and a sentence that has to be said aloud) and multiple means of action and expression (the CFO role gives a student who is strong with numbers and quiet in discussion a central job, and the recording rule lets a student capture a quote rather than compose a summary).
- No-presentation accommodation: nothing is presented to an audience on either day. The break-even sentence is said from a seat and may be read by a teammate or the teacher.

Assessment

Objective	Standards met	Learning task	Assessment (formative or

			summative; tool)
1. Five-specific customer profile; define the four money terms	PSI 2. a) b.; FCL 4. c); CDOS 3a Basic Skills	Day 1 Step 1; Day 2 Step 1	Formative; the profile is checked for five specifics, and the four terms are checked by the break-even sentence said aloud
2. Three interviews recorded in the customer's words; unit cost, price, margin, break-even computed	IGLR 4. b); CIR 2. c); Std 3 PI C; CDOS 2; National FCS 2.6.2	Day 1 Step 3; Day 2 Step 2	The interview sheet is scored on Rubric 07 criterion 3 (business brief and customer research) and the numbers page on criterion 4 (the numbers), both in Lesson 7.10. Formative today via the peer number check
3. Name what the interviews changed and revise; build a defended one-month projection	PSI 2. a) b.; IGLR 5. b); National FCS 2.5.1	Day 1 Step 4; Day 2 Step 3	Scored on Rubric 07 criteria 3 and 4. The revision sentence and the projection reason are the two lines that separate Meets from Approaching on those criteria

Topic 7.2's formal checks are Rubric 07 criteria 3 to 6. Criteria 3 and 4 are scored from the folder at the end of Lesson 7.10 Day 2; criteria 5 and 6 are scored in Lesson 7.11.

Homework

None required. Optional and used if done: one extra customer interview with an adult, written in their words, which raises the customer research evidence on criterion 3 from three interviews to four. Grade 8 stretch students should do this one.

Connections

Inside the building: math, directly and by name. Unit cost is a sum, margin is a difference, break-even is a division that produces a number of items and therefore has to be rounded up, and the projection is a two-step expression. Ask the math teacher for the wording they use for unit rate at grade 7 and use their words here, not different ones. FACS gives math a division problem where the remainder means something (you cannot sell 3.7 bags); math gives FACS the students' own vocabulary. Community: a local business owner asked one question, "what did you get wrong about your customer when you started," gives an answer worth reading aloud on Day 1.

Sources

- NYS Middle Level CTE FACS Content Module 01, Individual Growth and Life Readiness, lines 4. b) and 5. b).
- NYS Middle Level CTE Theme Module 03, Financial and Consumer Literacy, line 4. c); Theme Module 05, Problem Solving and Innovation, line 2. a) b.; Theme Module 02, Communication and Interpersonal Relationships, line 2. c).
- NYS Learning Standards for FACS (1996), Standard 3, Intermediate. NYS CDOS Standards 2 and 3a, Basic Skills. Wording per 02 Standards/STANDARDS SOURCES - web research.md. *[Sal: confirm against the NYSED PDFs.]*
- National Standards for FCS Education 3.0 (LEAD FCS Education, 2018), competencies 2.6.2 and 2.5.1.
- Sal's own materials: his Brentwood business packets "Know Your Customer" (the customer profile, the demographics and target audience framing, and the three-question customer interview with the biggest need, what they would pay, and how they would hear about it) and "Money In, Money Out" (revenue, expense, profit, fixed cost, variable cost, and break-even, and the two-page budget and profit analysis activity). Rewritten here with the teacher side they lacked, with break-even computed in units rather than months, and with the rule that the projection's unit count needs a reason.

Teacher notes

- Day 1's best moment is a team discovering their price was wrong. Do not soften it. Say out loud, "Three people just told you two dollars and you planned on five. That is free information and it cost you nothing."
- The rotation is the only way this works with a class of 30. If the rotation collapses, teams interview teams next to them and it becomes friends telling friends the idea is great. Enforce the two-table move.
- Stop the selling. Teams will pitch instead of ask. One word each time you hear it: "Ask."
- Day 2 Step 1 is the block to protect. Do the tote bag all the way through, out loud, with the whole class writing the same numbers. Everything in Step 2 depends on having seen it finished once.
- Break-even in units, not months. Months require assumptions a 13-year-old cannot defend. Units are countable and the sentence "we stop losing money after the fourth bag" is something a student can say to a judge under pressure.
- Every team member writes the numbers, not just the CFO. On pitch day a judge will ask the CEO what the margin is, and the CEO needs to know.
- The most common arithmetic error is forgetting the fixed cost in the projection. The second most common is dividing the wrong way on break-even. The peer number check in Step 4 catches both, which is why it exists.

- *[Sal: the Unit 6 circular is already in the room and students already read unit prices off it in Lesson 6.15. Use it for any food idea's unit cost. It makes the numbers real and it saves you finding prices.]*
- The signed numbers page is a gate. No signed page, no deck. Say it on Day 1 so nobody is surprised.
- If the unit is running in the one-period version, say so to students at the start and tell them exactly when their own numbers get done. Students tolerate compression fine; they do not tolerate finding out that a thing they were promised is not happening.