



TEACHER NOTES • SESSION 1

Teaching the trade-off, step by step

Day 1's checkpoint asks students to reason about opportunity cost, and most need to see that reasoning done before they try it. These notes run the last 18 minutes of the period as **I do, we do, you do**: you model one problem, the class solves one with you, and each student solves Sarah's problem alone. A script, the class answers and an answer key are below.

I DO

22-27 min • Jordan

You model the 4 steps out loud.

WE DO

27-32 min • Maya

The class calls out each step.

YOU DO

32-40 min • Sarah

Workbook p.1, on their own. Collect.

The 4 steps — put these on the board first

1 Sort it. List each item and its price. Mark each **N** (need) or **W** (want).

2 Needs first. Money you have – needs = money left for wants.

3 Test each want. Does its price fit in the money left? If yes, what's left after? If no, how much short?

4 Name the trade-off. For each choice, write what you give up — its opportunity cost. Then choose, and explain why.

I DO About 5 minutes • you model, students watch

Jordan has \$30. He needs \$12 for school lunches this week. He also wants an \$18 game add-on and a \$9 pizza night with friends.

Write each step on the board as you say it:

“First I sort. Jordan has to eat, so lunches are a **need**. The add-on and the pizza night are **wants**.”

“Needs come first. \$30 minus \$12 is \$18. That \$18 is all Jordan has for wants.”

“Now I test each want. The add-on is \$18 — it fits, exactly, but then nothing's left. Pizza is \$9 — it fits, and \$9 is left. Both together are \$27. That's more than \$18, so he can't have both. He's \$9 short.”

“Last step: what does each choice give up? Buy the add-on, and he gives up the pizza night. Go to pizza, and he gives up the add-on this week. Save it all, and he gives up both — for now.”

“I'd pick pizza and save the \$9 — I'd be halfway to the add-on. If you'd pick the add-on, that's fine too. What matters is you can say what you gave up.”

IF JORDAN CHOOSES...	LEFT AFTER	HE GIVES UP (OPPORTUNITY COST)
The game add-on	\$0	The pizza night with friends, and any savings
The pizza night	\$9	The add-on this week — he's \$9 short of it
Saving it all	\$18	The pizza night, and the add-on for now

WE DO About 5 minutes • the class leads, you write

Maya has \$50. She needs \$22 for a class trip. She also wants \$30 earbuds and a \$12 phone case. Ask each question, wait for hands, and write the answer on the board.

ASK THE CLASS	LISTEN FOR
"Which one is the need?"	The class trip, \$22. Earbuds and the case are wants.
"What's our first subtraction?"	$\$50 - \$22 = \$28$ left for wants
"Do the earbuds fit in \$28?"	No — \$30 is more than \$28. She's \$2 short.
"Does the phone case fit?"	Yes — $\$28 - \$12 = \$16$ left
"If she buys the case, what does she give up?"	\$12 toward the earbuds — she'd be \$14 short of them instead of \$2
"If she saves all \$28, what does she give up?"	The phone case for now — but she's only \$2 away from the earbuds

Then: partners take 60 seconds — "Which would you choose, and what's your opportunity cost?" Take two or three answers that choose differently, so the class hears that more than one choice can be right.

Sarah has \$40. She needs a \$25 bus pass. She also wants a \$20 hoodie and a \$10 movie ticket. Here's a complete answer:

1 · Sort it	Bus pass \$25 — N · Hoodie \$20 — W · Movie ticket \$10 — W
2 · Needs first	\$40 - \$25 = \$15 left for wants
3 · Test each want	Hoodie: \$20 doesn't fit in \$15 → \$5 short Movie: \$10 fits → \$5 left

4 · IF SARAH CHOOSES...	LEFT AFTER	SHE GIVES UP (OPPORTUNITY COST)
The movie	\$5	\$10 toward the hoodie — she'd be \$15 short of it instead of \$5
Saving the \$15	\$15	The movie now — but she's only \$5 from the hoodie

Either choice can reach Level 4 when the work is shown and each trade-off is named. The hoodie on its own isn't possible — she's \$5 short.

TEACHING MOMENT

If a student buys the hoodie and the movie first (**\$30**), Sarah has **\$10** left and **no bus pass**. That opportunity cost — a month of getting to school — is the biggest one in the whole problem. It's the reason needs come first.

What a strong answer shows

This is **Level 4** on the Needs vs. wants row of the Teacher's Guide rubric. **Level 3**, the provincial standard, sorts correctly, covers needs first and names the trade-off behind the choice.

- Covers the bus pass first and shows $\$40 - \$25 = \$15$.
- Notices the hoodie doesn't fit in what's left.
- Names what each choice gives up, not just what it costs.
- Makes a choice and explains it in a full sentence.

Common mistakes — and what to ask

IF A STUDENT SAYS OR DOES...	ASK
"The opportunity cost of the movie is \$10."	"That's the price. What does Sarah <i>give up</i> by spending it?"
Buys the hoodie or movie before the bus pass	"How does Sarah get to school this month?"
Buys the hoodie with the \$15	"Show me the subtraction — can \$15 pay for a \$20 hoodie?"
"Saving costs nothing."	"What does Sarah miss out on today if she saves?"

Short on time? Do the I do and we do on Day 1, and start Day 2 with the you do.

For classroom use, Grades 7–8. Supports Ontario Mathematics (2020), Strand F — **Gr 7 F1.4** (factors that influence financial decisions). "I do, we do, you do" is the gradual release of responsibility model. Educational material only — not financial advice.

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