

TEACHER DISCUSSION GUIDE

Exploration: The Cost of Vaping

Student Instructions: Using the information sheets about vaping costs, figure out how much vaping would cost each month in the scenarios below.

SCENARIOS	MONTHLY COST CALCULATION
<p>Example: Blake’s Vaping Cost</p> <p>Blake started vaping a few months ago. They use a disposable vape that costs \$15 each and lasts about one week. They use four vapes per month.</p>	<p>Let’s calculate Blake’s monthly vaping costs:</p> <ul style="list-style-type: none"> ● Uses 1 vape every week ● That means he needs 4 vapes per month (~4 weeks in a month) ● 4 vapes x \$15 each = \$60 per month <p>Answer: Blake spends \$60 per month on vaping.</p>
<p>Scenario 1: Cameron</p> <p>Cameron uses a refillable vape with flavoured pods. They use two packs of pods each month. Each pack of pods costs \$20. Their vape costs them \$48, and they will need to replace the vape once per year. How much will Cameron spend on vaping each month?</p> <p>(Hint: Divide the yearly cost of the vape by 12 to get the monthly cost.)</p>	<p>Monthly Cost Calculation:</p> <p>Monthly Cost Calculation:</p> <ul style="list-style-type: none"> ● Uses 2 packages of pods every month ● 2 packs x \$20 = \$40 per month ● Vape = \$48/12 = 4 ● 40 + 4 = \$44 per month <p>Answer: Cameron spends \$44 per month on vaping.</p>

SCENARIOS	MONTHLY COST CALCULATION
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<p>Scenario 2: Blair</p> <p>Blair shares a vape with friends but still uses it daily. They and their friends buy five disposable vapes per month, which cost \$30 per vape. How much will Blair spend on vaping each month if he shares the cost with 3 friends?</p>	<p>Monthly Cost Calculation:</p> <ul style="list-style-type: none"> • Uses 5 vapes per month • $5 \text{ vapes} \times \\$30 = \\$150$ per month • Shares with 2 friends (3 people total) = $\\$150/3 = \\50 each <p>Answer: Blair spends \$50 per month on vaping.</p>
<p>Scenario 3: Ash</p> <p>Ash uses a high-nicotine vape. They buy two bottles of vape juice each month, which cost \$30 each. Ash also needs replacement coils for their device, which cost \$10 for two coils. She uses two coils per month. How much will Ash spend on vaping each month?</p>	<p>Monthly Cost Calculation:</p> <ul style="list-style-type: none"> • Needs 2 bottles of vape juice per month $\rightarrow \\$30 \times 2 = \\60 • Needs 2 coils per month $\rightarrow \\$10$ • Total: $\\$60 + \\$10 = \\$70$ per month <p>Answer: Ash spends \$70 per month on vaping.</p>
<p>Scenario 4: Taylor</p> <p>Taylor uses a refillable vape with nicotine e-juice. They go through three bottles of juice every month. Each bottle costs \$20. Taylor also needs to replace their coils once a month, which costs \$12 each time. Their vape device costs \$60 and needs to be replaced once a year. How much will Taylor spend on vaping each month? (Hint: divide the yearly cost of the vape by 12 to get the monthly cost.)</p>	<p>Monthly Cost Calculation:</p> <p>Monthly Cost Calculation:</p> <ul style="list-style-type: none"> • Uses 3 bottles per month • $3 \text{ bottles} \times \\$20 = \\$60$ • 1 pack of coils per month = \$12 • $\\$60 \text{ yearly cost}/12 = \\5 • Total: $\\$60 + \\$12 + \\$5 = \\77 per month <p>Answer: Taylor spends \$77 per month on vaping.</p>

REFLECTION QUESTIONS

1. How much do each of these students spend on vapes per **year**?

- Cameron: $\$44 \times 12 = \$528/\text{year}$
- Blair: $\$50 \times 12 = \$600/\text{year}$
- Ash: $\$70 \times 12 = \$840/\text{year}$
- Taylor: $\$77 \times 12 = \$924/\text{year}$

2. What else could they buy with this money instead?

Answers may vary.