The 12-Month Goal Plan

Help a teen reach a big savings goal in one year — with an uneven paycheck and a busy calendar.

Unit 2: Budgeting & Spending | 2–3 class periods | Pairs

Name(s) _____ Period ____ Due _____

Introduction

Big goals — a first car, a security deposit, a semester abroad — are reached one month at a time. In this project you and a partner act as financial coaches for Jaylen, a high school senior with a part-time job, a goal, and a calendar full of things that cost money.

> Jaylen, 17, works at the Maple Falls Rec Center for $16.50 per hour and keeps about 92% after payroll taxes. Hours change with the season. Jaylen has $650 saved and wants $3,600 by next August for a used-car down payment, insurance deposit, and registration.

Learning goals

- Model income that varies month to month.
- Plan for known irregular expenses with sinking funds.
- Use inequalities to test whether a savings goal is reachable.
- Compare spending choices and quantify opportunity costs.
- Recommend and defend a realistic plan.

Supporting documents and data

Jaylen’s expected work hours

Month	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Hours	40	44	40	56	36	36	40	44	48	80	96	80

Jaylen’s regular monthly spending

Item	Monthly
Phone (share of family plan)	$30
Food & snacks out	$85
Streaming & games	$24
Gas money to friends	$20

Item	Monthly
Clothes	$40

Known irregular expenses

Month	Expense	Cost
Oct	Homecoming	$140
Dec	Holiday gifts	$220
Feb	School trip	$180
Apr	Prom	$310
Jun	Graduation photos & party contribution	$150
Jul	Birthday trip with friends	$200

Two spending decisions Jaylen is considering

Decision	Option 1	Option 2
Phone	Keep family plan share $30/mo	Own unlimited plan $65/mo
Lunch	Buy lunch 3×/week at $9.50	Pack lunch, about $3 each

Tasks

Task 1: Model the income

1. For each month, compute take-home pay = hours × $16.50 × 0.92 (round to cents).
2. Find total take-home pay for the year and the average per month.
3. Identify Jaylen's three lowest-income months.

Deliverable: 12-month income table.

Task 2: Build the monthly cash-flow table

1. For each month: take-home − regular spending − irregular expenses = amount available to save.
2. Track a running savings balance starting at $650.
3. Mark any month with negative cash flow.

Deliverable: Cash-flow table with running balance.

Task 3: Test the goal

1. Does the balance reach $3,600 by the end of August? By how much is Jaylen over or short?
2. Write and solve an inequality for the extra average amount per month (x) needed: final balance + 12x ≥ 3,600.
3. Use sinking funds: how much should Jaylen set aside each month starting in September to cover all irregular expenses evenly?

Deliverable: Goal analysis with inequality and sinking-fund amount.

Task 4: Compare spending decisions

1. Compute the yearly cost difference for the phone decision and the lunch decision (36 school weeks for lunch).
2. Explain the opportunity cost of each in terms of the goal.
3. Recommend which changes Jaylen should make and show the new year-end balance.

Deliverable: Comparison table and recommendation.

Task 5: Coach's memo

1. Write a one-page memo to Jaylen: the plan, the monthly savings targets, the riskiest months, and a backup plan if hours are cut.
2. Include at least one chart (running balance by month).

Deliverable: Memo with chart.

Reflection

1. Why is a goal with uneven income harder to plan for?

2. Which change had the biggest impact for the least sacrifice?

3. How could you use this method for one of your own goals?

Submission checklist

- ☐ Income table (12 months)
- ☐ Cash-flow table with running balance

- ☐ Goal test and inequality
- ☐ Sinking-fund calculation
- ☐ Two spending comparisons
- ☐ Coach’s memo with chart
- ☐ Reflection

Scoring rubric

Category (points)	Exemplary (100%)	Proficient (~80%)	Developing (~60%)	Beginning (~30%)
Financial understanding (20)	Explains variable income, sinking funds, and opportunity cost accurately.	Minor gaps.	Partial understanding.	Little understanding.
Mathematical accuracy (25)	Income, cash flow, running balance, and inequality all correct.	1–2 minor errors.	Several errors.	Mostly incorrect.
Analysis (20)	Identifies risky months, quantifies both decisions, tests the goal precisely.	Most analysis complete.	Superficial.	Missing.
Justification (15)	Recommendation backed by numbers and realistic tradeoffs; includes a backup plan.	Mostly justified.	Weak justification.	None.
Communication (10)	Clear memo and labeled chart.	Minor issues.	Hard to follow.	Disorganized.
Completion & collaboration (10)	All items complete; both partners contributed.	One item missing.	Several missing.	Mostly missing.

Total: 100 points. Alternative recommendations earn full credit when supported by accurate evidence.

ALL PEOPLE, BUSINESSES, PLACES, AND NUMBERS IN THIS PROJECT ARE FICTIONAL. RATES AND COSTS ARE ILLUSTRATIVE ASSUMPTIONS.