PFL Academy

Teacher Guide: Chapter 5.4 — Time is Money: Developing a Financial Strategy

OVERVIEW

TIME	MATERIALS	PREREQUISITES
45-50 Minutes	Student Activity Packet, Calculator	Chapters 5.1-5.3 (Saving, Investing, Strategies)

LESSON FLOW

5 min — **THE CHALLENGE**

- Read Alex's dual-goal scenario. Poll: "Should Alex use the same strategy for both goals?"
- Emphasize that time horizon is the key differentiator—same person, different strategies.
- Preview that today combines all previous concepts into actionable strategies.

10 min — **CORE CONCEPTS**

- Review time horizons with examples: short (car), medium (house), long (retirement).
- Discuss risk tolerance: "Would you rather have a guaranteed $1,000 or a 50/50 chance at $2,500?"
- Introduce inflation as the "hidden tax" that erodes purchasing power over time.

25-28 min — **APPLY IT**

- **Part A (8 min):** Compare Alex and Taylor's contrasting strategies. Key insight: same logic, different applications.
- **Part B (7 min):** Inflation calculator—the "aha moment" when students see money losing value over time.
- **Part C (8 min):** Solve the opening challenge. Guide realistic allocations for Alex's dual goals.
- **Part D (5 min):** Personal blueprint—have students start thinking about their own strategies.

10 min — **CHECK YOUR UNDERSTANDING**

- Focus on Q2 (inflation risk for retirement) and Q3 (Maya vs. Jordan comparison).
- Reinforce: Starting early matters MORE than the amount—connect to compounding lesson.

DIFFERENTIATION

Support

- Create a visual flowchart: Time Horizon → Risk Level → Vehicle Type.
- Provide pre-calculated inflation numbers for Part B.
- Work through Alex's allocation as a class before individual work.
- Simplify to two categories: "short-term = savings" vs. "long-term = investments."

Extension

- Calculate exact retirement projections using compound interest formula.
- Research actual historical returns of different asset classes.
- Create a multi-goal financial plan with 3+ goals at different time horizons.
- Analyze how strategies should change as time horizons shrink (glide path concept).

ANSWER KEY

Part A: Contrasting Strategies

1. Why Alex avoids stocks for car fund: With only 3 years, the market could drop significantly right when Alex needs the money. If stocks dropped 30%, Alex might only have $10,500 instead of $15,000—and wouldn't be able to buy the car. Short time horizons require certainty.

2. Why Taylor can take more risk: With 40 years, Taylor has time to ride out multiple market cycles. Historical data shows markets recover from downturns given enough time. Even a 50% drop early on becomes irrelevant over 40 years of growth.

3. If Taylor's retirement were 5 years away: Taylor would need to shift to more conservative investments (more bonds, fewer stocks). With less time to recover from drops, preservation becomes more important than growth.

Part B: Inflation Calculator

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Purchasing Power Calculations:
• $10,000 ÷ 1.344 = $7,440 (after 10 years)
• $10,000 ÷ 1.806 = $5,537 (after 20 years)
• $10,000 ÷ 2.427 = $4,120 (after 30 years)
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4. Earning 1% when inflation is 3%: You're losing 2% purchasing power annually. Your account balance grows, but what you can actually buy with it shrinks. In real terms, you're getting poorer.

5. Why "safe" savings accounts are risky for retirement: Over 30-40 years, inflation dramatically erodes purchasing power. A "safe" 1% return that doesn't keep pace with 3% inflation means your retirement fund will only buy about 40% of what you planned. You need growth-oriented investments to maintain purchasing power.

Part C: Alex's Dual Strategy

> *Accept reasonable allocations that demonstrate understanding. Sample solution below.*

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Sample Allocation:
Car Fund: $417/month × 36 months ≈ $15,000
• 60% High-yield savings (2% APY)
• 40% 1-year CDs (3% APY)
Retirement: $83/month
• 70% Stock index funds
• 30% Bond funds
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6. Car fund justification: Conservative allocation because Alex needs the money in exactly 3 years. CDs provide slightly higher returns while savings account maintains liquidity. Cannot risk principal loss.

7. Retirement justification: Aggressive allocation because 40-year time horizon allows recovery from any downturn. Index funds provide diversified exposure to stock market growth. Even small amounts compound significantly over 40 years.

Check Your Understanding

1. B (How long until you need the money—time horizon is the primary factor)

2. Inflation risk: Over 30-40 years, inflation could cut purchasing power by 60-75%. A savings account earning 1-2% won't keep pace with 3% inflation, meaning you'll have less real value despite a larger nominal balance.

3. Maya will likely have more despite lower contributions. Starting 10 years earlier gives her money more time to compound. At 7% returns: Maya's $200/month for 43 years ≈ $580,000. Jordan's $400/month for 33 years ≈ $540,000. Time beats amount.

4. Diversification means spreading investments across different asset types (stocks, bonds, different sectors). Important because it reduces risk—when one investment drops, others may hold steady or rise. "Don't put all your eggs in one basket."

COMMON MISCONCEPTIONS

Misconception	Clarification
"I should wait until I have more money to invest."	Time in the market matters more than amount. Starting with $50/month at age 22 beats $500/month at age 35. Compound growth rewards early starters dramatically.
"My savings account is safe, so it's fine for retirement."	Safe from market drops, but not safe from inflation. Over 40 years, a savings account could lose 60%+ of purchasing power. Long-term goals need growth investments.
"I should use the same strategy for all my goals."	Different goals have different time horizons. A car fund and retirement fund for the same person require completely different strategies. Match strategy to timeline.