Champions for Financial Legacy

UNDERSTANDING COMPOUND INTEREST

INTRODUCTION

Albert Einstein called compound interest the “eighth wonder of the world.” It’s the magic of earning returns on your initial investment and on the accumulated interest. This worksheet will guide you through understanding and harnessing its potential.

SECTION 1: THE BASICS OF COMPOUNDING

Key Principle: Compound interest is essentially earning on your interest.

Define compound interest in your own words:

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_____

_____

Why is this so powerful for building wealth?

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SECTION 2: THE FORMULA FOR GROWTH

While the actual formula can look intimidating, let's understand the core concept:

Future Value = Present Value + Accumulated Interest

- **Present Value:** The initial amount you invest.
- **Accumulated Interest:** The interest earned over time, including interest on past interest.

The Power of Time: The longer your money is invested, the more time it has to compound, leading to exponential growth.

SECTION 3: ILLUSTRATIVE EXAMPLES

Scenario 1: The Penny Game

Imagine starting with a single penny and doubling it every day for a month.

- Day 1: $0.01
- Day 2: $0.02
- Day 3: $0.04
- Day 4: $0.08

  ... (continue the pattern)

Challenge: Calculate how much money you would have by **Day 30**. This activity shows the explosive growth potential of compounding over time.

Answer: _____

SECTION 3: ILLUSTRATIVE EXAMPLES

Scenario 2: Comparing Investments

Feature	Investor A	Investor B
Initial Investment	$1,000	$1,000
Annual Interest Rate	7%	7%
Investment Length	10 Years	30 Years

Challenge: Use a compound interest calculator (easily found online) to determine the future value of each investment.

Investor	Final Value (After Interest)
Investor A	$_____
Investor B	$_____

Compare the results. What do you notice about how time affects the value of the investment?

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SECTION 4: THE IMPACT OF RATE OF RETURN

Scenario 3: Comparing Rates

Feature	Investor A	Investor B
Initial Investment	$5,000	$5,000
Investment Length	20 Years	20 Years
Annual Interest Rate	5%	8%

Challenge: Use a compound interest calculator to determine the future value of each investment.

Investor	Final Value (After Interest)
Investor A	$_____
Investor B	$_____

Compare the results. Share how even small differences in the rate of return can significantly impact your wealth over time.

SECTION 4: KEY TAKEAWAYS

1. Time is Your Greatest Asset: The earlier you start investing, the more time your money has to compound, making it your most powerful tool.

2. Small Differences Matter: Even small differences in your rate of return or expenses can significantly impact your wealth over the long term.

3. Consistency is Key: Regular contributions, even small ones, can add up significantly over time thanks to compounding.

SECTION 5: ACTION PLAN

🚀 **START TODAY**

Determine a manageable amount to start investing now.

🎯 **SET REALISTIC GOALS**

Define your financial goals and create a plan to achieve them through consistent investing and the power of compounding.

🧠 **STAY INFORMED**

Keep learning about investing and financial management to make confident, informed decisions.

Answer Key:

Section 3: *Scenario 1: $5.37 million; Scenario 2: Investor A: $2,001.60, Investor B: $8,019.18; Scenario 3: Investor A: $13,507.20, Investor B: $24,377.20 (using quarterly compounding)*