Money With a Mission

Match investments to goals, risk, and time.

9-12.EC.16 "Evaluate types of investments to determine how they meet the objectives of a personal financial plan including compound interest over time."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each of Lena's goals, circle details about access or risk, and number the two balances that show how compounding changes growth. Use your marks to compare which investments fit her plans.

Three Plans for One Paycheck

1. Lena has three goals for the money she earns at a neighborhood bakery. She wants $600 available if her bicycle needs repairs, $2,400 for a used car in five years, and a retirement fund she will not touch for decades. These goals call for different amounts of access, risk, and potential growth. A surprise repair cannot wait for an investment to recover from a drop in value. Retirement money has more time to recover, although a long time horizon does not erase risk. Lena compares investments by asking when she needs the money and how much loss she could tolerate.

2. An insured savings account lets Lena withdraw money quickly and pays interest, but its rate may change. A bank certificate of deposit, or CD, offers a fixed rate for a stated term. Withdrawing before the term ends usually brings a penalty; deposit insurance applies when the bank and balance qualify. A diversified stock index fund holds shares of many companies. Its value can rise or fall, and neither its return nor its original balance is guaranteed. Over long periods, stocks have often outgrown bank deposits, but past performance cannot promise future gains. Inflation can also reduce what any final balance will buy.

3. Time changes the comparison because interest can earn more interest. Suppose $2,000 earns 5% a year, compounded once each year, with no deposits or withdrawals. After one year, the balance is $2,100. After two years, it is $2,205: the second year's $105 gain includes $5 earned on the first year's interest. Without compounding, earning 5% only on the original $2,000 would add $100 each year, producing $2,200 after two years. These numbers illustrate a fixed rate, not a promised stock return. Fees and taxes can reduce actual gains, so Lena should compare costs as well as projected growth.

2 ANSWER WITH EVIDENCE

Use the passage

1. Which option best fits Lena's bicycle-repair money: the savings account, a CD, or the stock index fund? Explain using her goal.

2. Lena finds a CD whose term ends before she plans to buy the car. Why might she choose it instead of the stock index fund for that goal? Name one condition she should check.

3. For the $2,000 example, how much more is in the account after two years with compounding than without it? Why does the difference occur?

4. Why might the stock index fund fit Lena's retirement goal better than her repair goal? Include one risk she would still face.

3 YOUR TURN

Your own words

You have $600 for an appliance you may need within ten months and $1,000 for a goal twenty years away. Write four sentences choosing an option from the passage for each goal, explaining both choices, and showing what $1,000 would become after two years at a hypothetical 4% annual return compounded yearly.

ANSWER KEY

Money With a Mission

HIGH SCHOOL · 9-12.EC.16

PART 1 · READ AND MARK

Underline each of Lena's goals, circle details about access or risk, and number the two balances that show how compounding changes growth. Use your marks to compare which investments fit her plans. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Which option best fits Lena's bicycle-repair money: the savings account, a CD, or the stock index fund? Explain using her goal.	**The savings account fits because Lena may need the money suddenly. A CD may charge an early-withdrawal penalty, and the fund could lose value before she needs it.**
2	Lena finds a CD whose term ends before she plans to buy the car. Why might she choose it instead of the stock index fund for that goal? Name one condition she should check.	**The CD offers a fixed rate and avoids a possible stock-market loss when she needs the car money. She should check that its term ends before the purchase, or that the bank and deposit qualify for insurance.**
3	For the $2,000 example, how much more is in the account after two years with compounding than without it? Why does the difference occur?	**$5 more. In the second year, interest is earned on the first year's $100 of interest as well as on the original $2,000.**
4	Why might the stock index fund fit Lena's retirement goal better than her repair goal? Include one risk she would still face.	**She has decades before retirement, giving her more time to recover from a drop and seek growth. The fund can still lose value, and its returns are not guaranteed.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would keep the $600 in an insured savings account because I may need it soon. I would put the $1,000 in a diversified stock index fund because I have twenty years to seek growth, although I could lose money. At a hypothetical 4% return, $1,000 becomes $1,040 after one year and $1,081.60 after two years. That return is an example, not a promise of what the fund will earn.

Accept other well-supported long-term choices if students explain how the choice fits the goal and acknowledge its risks. The two-year compound balance must be $1,081.60.