

Interstellar Investor – National Education Standards

8th Grade Benchmarks

At the completion of Grade 8, students will know the Grade 4 benchmarks for this standard and also that:	At the completion of Grade 8, students will use this knowledge to:
1. Financial assets include a wide variety of financial instruments including bank deposits, stocks, bonds, and mutual funds. Real estate and commodities are also often viewed as financial assets.	Describe the differences among the different types of assets. Find the prices of a variety of current possible investments.
2. Interest is received from money deposited in bank accounts. It is also received by owning a corporate or government bond or making a loan.	Calculate the amount of interest income received from depositing a certain amount of money in a bank account paying 1 percent per year and from owning a bond paying 5 percent per year.
3. When people buy corporate stock, they are purchasing ownership shares in a business. If the business is profitable, they will expect to receive income in the form of dividends and/or from the increase in the stock's value. The increase in the value of an asset (like a stock) is called a capital gain. If the business is not profitable, investors could lose the money they have invested.	Determine the amount of dividends paid from a selected stock and how much the price of the stock has appreciated or depreciated over the year.
4. The price of a financial asset is determined by the interaction of buyers and sellers in a financial market.	Explain why the price of a stock might change if more individuals decide to purchase the stock. Explain why the price of a stock might change if more companies issue new shares of stock to raise new investment funds.
5. The rate of return on financial investments consists of interest payments, dividends, and capital appreciation expressed as a percentage of the amount invested.	Calculate rates of return on a number of financial instruments taking into account interest, dividends, rents, and expected appreciation over time.
6. Financial risk means that a financial investment has a range of possible returns, including possibilities of actual losses. Higher-risk investments have a wider range of possible returns.	Compare the risk of an insured certificate of deposit with the risk of a purchase of a number of shares of stock. Explain the difference.
7. The rate of return earned from investments will vary according to the amount of risk. In general, a trade-off exists between the security of an investment and its expected rate of return.	Compare rates of return of a variety of different investments and speculate on the amount of risk each of the investments entails

12th Grade Benchmarks

At the completion of Grade 12, students will know the Grade 4 and Grade 8 benchmarks for this standard and also that:	At the completion of Grade 12, students will use this knowledge to:
1. The real return on a financial investment is the nominal return minus the rate of inflation.	Calculate real rates of return earned on a bond given interest rates and inflation rates.
2. Federal, state, and local tax rates vary on different types of investments and affect the after-tax rate of return of an investment.	Given tax rates and inflation rates, calculate the real, after-tax rates of return for groups of stocks and bonds.
3. Expenses of buying, selling, and holding financial assets decrease the rate of return from an investment.	Identify and compare the administrative costs of several mutual funds and estimate the differences in the total amount accumulated after 10 years for each mutual fund, assuming identical market performance.
4. Buyers and sellers in financial markets determine prices of financial assets and therefore influence the rates of return on those assets.	Predict what will happen to the price and rate of return on a bond if buyers believe that the bond has increased in risk.
5. An investment with greater risk than another investment will commonly have a lower market price, and therefore a higher rate of return, than the other investment.	Explain why the expected rate of return on a "bluechip" stock is likely to be lower than that of an Internet start-up company.
6. Shorter-term investments will likely have lower rates of return than longer-term investments.	Explain how markets will determine the rates of return for two bonds if one is a long-term bond and the other a short-term bond, assuming each bond pays the same rate of interest.
7. Diversification by investing in different types of financial assets can lower investment risk. Compare the risk faced by two investors, both of whom own two businesses on a beach. One investor owns a suntan lotion business and a rain umbrella business. The other investor owns two suntan lotion businesses.	Explain why a financial advisor might encourage a client to include stocks, bonds, and real estate assets in his or her portfolio.
8. Financial markets adjust to new financial news. Prices in those markets reflect what is known about those financial assets.	Explain how prices of financial investments can adjust when given specific news about a company's or industry's future profitability.
9. The prices of financial assets are affected by interest rates. The prices of financial assets are also affected by changes in domestic and international economic conditions, monetary policy, and fiscal policy.	Give an example of a change in interest rates affecting the current value of a financial asset that pays returns in the future. Explain why the current value increases when interest rates fall. Explain how a change in economic growth might change the value of a stock held by an investor.
10. Investors should be aware of tendencies that people have that may result in poor choices. These include avoiding selling assets at a loss because they weigh losses more than they weigh gains and investing in financial assets with which they are familiar, such as their own employer's stock or domestic rather than international stocks.	Explain why investors may sell stocks that have gained in value, but hold ones that have lost value. Explain why this may not make sense. Identify an example of why an investor may have a bias toward familiar investments and why this may or may not be a rational decision.
11. People vary in their willingness to take risks. The willingness to take risks depends on factors such as personality, income, and family situation.	Explain how the portfolio of a retiree might differ from that of a young, single person.

12. An economic role for governments exists if individuals do not have complete information about the nature of alternative investments or access to competitive financial markets.	Explain why it is important for individuals to have accurate information about a company's sales and profits when investing in that company.
13. The Securities and Exchange Commission (SEC), the Federal Reserve, and other government agencies regulate financial markets.	Conduct research to learn about the SEC or the Federal Reserve and identify their roles in regulating financial markets.

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