iBlocks™

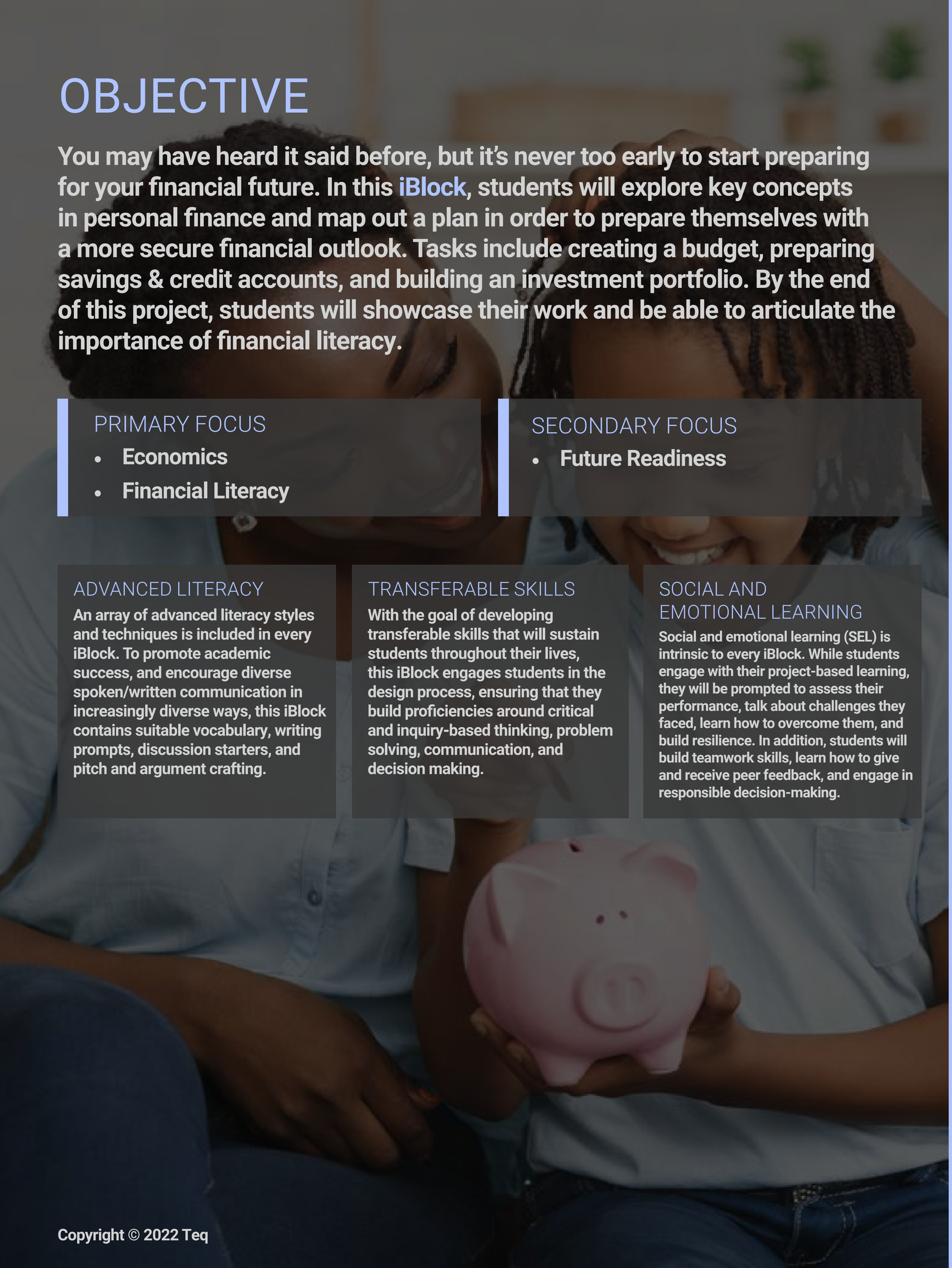
Teacher's Guide

High School Level

Financial Literacy

Created for:

School



OBJECTIVE

You may have heard it said before, but it's never too early to start preparing for your financial future. In this iBlock, students will explore key concepts in personal finance and map out a plan in order to prepare themselves with a more secure financial outlook. Tasks include creating a budget, preparing savings & credit accounts, and building an investment portfolio. By the end of this project, students will showcase their work and be able to articulate the importance of financial literacy.

PRIMARY FOCUS

- Economics
- Financial Literacy

SECONDARY FOCUS

- Future Readiness

ADVANCED LITERACY

An array of advanced literacy styles and techniques is included in every iBlock. To promote academic success, and encourage diverse spoken/written communication in increasingly diverse ways, this iBlock contains suitable vocabulary, writing prompts, discussion starters, and pitch and argument crafting.

TRANSFERABLE SKILLS

With the goal of developing transferable skills that will sustain students throughout their lives, this iBlock engages students in the design process, ensuring that they build proficiencies around critical and inquiry-based thinking, problem solving, communication, and decision making.

SOCIAL AND EMOTIONAL LEARNING

Social and emotional learning (SEL) is intrinsic to every iBlock. While students engage with their project-based learning, they will be prompted to assess their performance, talk about challenges they faced, learn how to overcome them, and build resilience. In addition, students will build teamwork skills, learn how to give and receive peer feedback, and engage in responsible decision-making.

iBlocks:
Financial Literacy

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Skills Matrix

Phases: Research & Planning · Testing & Learning · Extensions · Design & Construction · Share & Showcase

You've got this!

This skills matrix shows your **iBlock modules on the left**, and across the top are the **skills** that you'll practice as you work through your iBlock challenge.

Module	Gathering Research	Making Logical Inferences from Text	Producing Informative and/or Persuasive Texts	Justifying Decisions Using Research	Identify Financial Barriers and Areas of Financial Improvement	Providing and Receiving Constructive Feedback	Collecting and Analyzing Data	Presenting Your Work	Solving Real-World Mathematical Problems	Reasoning Quantitatively with Equations and Functions	Utilizing Budgeting, Saving, and/or Investment Strategies Effectively	Identifying Challenges and Skills Needed to Maintain a Positive Credit Rating	Creating a Long-Term Financial Plan	Using Digital Modeling for Finances
Why Money Matters	✓	✓	✓											
Demystifying Personal Finance	✓	✓	✓						✓	✓				✓
Career Planning	✓	✓	✓	✓						✓				
Create a Budget	✓	✓	✓	✓					✓	✓	✓		✓	
Savings, Banking, and Credit Scores	✓	✓	✓	✓					✓	✓	✓	✓	✓	
Build Your Investment Portfolio	✓	✓	✓	✓			✓		✓	✓	✓		✓	
My Financial Plan	✓	✓	✓	✓	✓	✓					✓	✓	✓	
Update Your Financial Plan	✓	✓	✓	✓	✓						✓	✓	✓	
Present Your Financial Futures Map	✓	✓	✓					✓						
Financial Forecasting	✓	✓	✓				✓		✓	✓		✓		✓

Research & Planning Phase

Module 1- Why Money Matters

Task - Students will research key economics terms and concepts.

Goal - To recognize the importance of money in order to set yourself up on a successful financial path.

Vocabulary:

- **Economics (noun):** a social science that studies how communities and people allocate scarce resources to satisfy unlimited wants
- **Debt (noun):** money that is owed
- **Finance (noun):** the management of large amounts of money
- **Inflation (noun):** the rate of increase in prices over a given period of time

Research

1. In your own words, define what money is.

Possible Outcomes:

Money is a means of exchange that we use to acquire the things we need to survive, as well as the items, experiences, or services we want for enjoyment. It can also be thought of as an "intermediary good" in trade.

Research & Planning Phase

Module 1- Why Money Matters (continued)

2. How did people exchange goods before the introduction of modern currencies? Provide an example.

Possible Outcomes:

Before the introduction of modern currencies, people used to barter for goods. For example, if someone wanted dates or pistachios, they may have traded a quantity of wool or sugar in exchange for the dates/pistachios.

Teacher Tip:

There are many historical connections throughout this section. Connect with the history or social studies teacher to explore topics such as the spice trade, Silk Road, triangular trade, or simply explore the types of goods traded in ancient times.

3. List at least two benefits of using money as opposed to trade.

Possible Outcomes:

Money provides transferability, so that there is a standard basis of exchange for the value of items. It is less tiresome, as well as less confusing, to use currency in comparison to determining a trade that works for all parties involved. It can be extremely difficult to find a person who wants to trade for the items another has to offer.

Module 1- Why Money Matters (continued)

Chart 1.A: Monetary Systems
Describe the different types of monetary systems.

Possible Outcomes:

Monetary System	Description
Commodity	Commodity money is made up of an economic product, such as precious metals, that have intrinsic value. An example would be gold and silver coins. Even if you melt them down, they still retain their value.
Commodity-based	Commodity-based money is also known as representative money. The tangible money/bank notes are issued by a government and backed by a commodity, and therefore can be exchanged for that value. In the past, the US dollar was based on a fixed amount of gold in reserves, known as the Gold Standard.
Fiat	Fiat money is legal tender guaranteed by the issuing government, rather than a physical commodity. This value is based on the government's stability, as well as supply and demand.
Cryptocurrency	Cryptocurrencies do not have a central authority, i.e. they are not issued by a government. They are a digital/virtual currency that is backed by blockchain technology/online ledger.

Module 1- Why Money Matters (continued)

4. What is the most common monetary system?
 a. Why is that the case?
 b. How long has this been true, and why did it change over time?
 c. In your opinion, will this remain true in the future? Why?

Possible Outcomes:

Fiat money is currently the most common monetary system, but that was not always the case.
 a. Fiat money is easy to print and is believed to be more stable than commodity money (although there is disagreement on this point).
 b. Fiat money helps preserve the value of precious metals. During the Civil War, the US Federal Government issued "Greenbacks," and since 1971, fiat currencies have been used throughout the world. In 1971, Richard Nixon introduced a bill that ended the system of representative money in the U.S.
 c. Answers are subject to student opinion. Example: "I still think fiat money is unstable because it is so affected by the government. I think cryptocurrency may have a stronger presence in the future."

Teacher Tip:

If time allows, continue the conversation about money systems. Compare the benefits and disadvantages of each. For instance, fiat money can lead to issues of inflation and even hyperinflation.

Note that while cryptocurrencies are introduced here, we will not go into depth about them until Module 6.

5. What is an economy?

Possible Outcomes:

An economy is the wealth and resources of a country or region, based on its production and consumption.

Module 1- Why Money Matters (continued)

6. What is the difference between micro and macroeconomics?

Possible Outcomes:

Macroeconomics is the big picture - the study of the economy as a whole. Whereas, microeconomics looks more closely at how individuals and companies make decisions about allocating resources.

Chart 1.B: Economic Concepts
Define the following fundamental concepts as they apply to economics.

Possible Outcomes:

Concept	Description	Example
Supply and demand	Supply and demand is a relationship between the amount/quantity of a commodity producers want to sell, and the quantity consumers want to buy. In economic theory, supply and demand models are used to help determine pricing.	The local bookstore sold notebook journals at $8. However, no one wanted to pay that price. They lowered the cost to $6 and the demand for the product increased. Now the bookstore is making money.
Scarcity	Supplies are limited and scarcity means that the demand for a resource is greater than its supply.	Only limited amounts of coal can be mined for energy, there is a large demand for coal because it is a primary fuel source. Therefore coal is scarce.
Opportunity cost	An opportunity cost is a benefit that one might miss out on when making choices, such as investments. Opportunity costs can easily be overlooked.	You spent $10 on a coffee, when that money could have been used for gas money instead, or saved/ invested for a future vacation.

Research & Planning Phase

Module 1- Why Money Matters (continued)

7. Explain why exchange rates between countries exist.

Possible Outcomes:

Exchange rates exist because different countries have different economies. Exchange rates provide a value for allowing exchange between different economic zones/foreign markets.

Teacher Tip:
Have students explore exchange rates between different countries. For example, how much is a Japanese yen worth compared to the US dollar, what about the euro, Chinese yuan, or a Mexican peso? What would this mean for travel?

8. Why is it important to study economics and finance?

Possible Outcomes:

Put simply, economics has a direct impact on our personal lives and how we handle our finances. The umbrella of economics encompases inflation, taxes, interest rates, issues relating to politics, the environment, and other social factors.

Checkpoint:
At the end of Module 1, students should have a solid understanding of what money is and why it is important to understand the factors that influence its value and importance in society.

Suggested Resources

- What is Money: https://bit.ly/iblocks_what-is-money
- Econ Vids for Kids: What is Money?: https://bit.ly/iblocks_econvids
- The History of Paper Money - Origins of Exchange: https://bit.ly/iblocks_paper-money-history
- What is Fiat Currency?: https://intuit.me/3aSTw4t
- Fiat Money: https://bit.ly/iblocks_fiat-money
- TED-Ed: What gives a dollar bill its value? By Doug Levinson: https://bit.ly/iblocks_dollar-value
- Encyclopedia Britannica - "supply and demand": https://bit.ly/iblocks_suppy-demand
- Economics & Personal Finance Resources for K-12: https://bit.ly/iblocks_econedlink
- Silk Road Virtual Tour by Professor Clayton Brown: https://bit.ly/iblocks_silk-road

Research & Planning Phase

Module 2 - Demystifying Personal Finance

Task - Students will explore fundamental questions about personal finance.

Goal - To understand the significance of personal finance and security.

Vocabulary:

- **Banking (noun):** the business conducted or services offered by a bank.
- **Bankrupt (noun):** unable to pay outstanding debts.
- **Budget (noun):** an estimate of income and spending for a particular period of time.
- **Expense (noun):** the amount of money spent on something.
- **Identity theft (noun):** fraudulent use of someone's identifying information or data, typically for financial gain.
- **Income (noun):** money gained (through work or investments).
- **Insurance (noun):** guaranteed compensation for loss or damage in return for a contracted payment.
- **Interest (noun):** a sum charged for borrowing money; the money you owe when borrowing money or paid when lending money; sometimes referred to as "simple interest."
- **Mortgage (noun):** an agreement between a buyer and a lender that gives the lender the right to take the property if the money borrowed plus interest is not repaid.
- **Solvent (adj.):** ability to pay all debts.
- **Tax (noun):** required monetary contribution to support government services or facilities, i.e. income, payroll, property, and sales taxes.

Research & Planning Phase

Module 2 - Demystifying Personal Finance (continued)

Research

1. What is "personal finance?"

Possible Outcomes:

Personal finance is how you manage your money, including saving and investing for both short and long-term goals.

2. Compare and contrast "saving" and "investing."

Possible Outcomes:

Both saving and investing can help someone accumulate money, but they differ in the risk taken to achieve these means. "Saving" is usually done with a bank through savings accounts, CDs, or money-market accounts, and carries virtually no risk as it is FDIC-insured. Returns from savings are usually low though. "Investing" is typically done with a brokerage account through stocks, bonds, mutual funds, and exchange-traded funds (ETFs). Investments can yield higher returns, but there is a greater degree of risk associated.

Key Concepts:

FDIC stands for Federal Deposit Insurance Corporation. FDIC is a government agency, and FDIC insured accounts are federally protected against bank failures or theft.

3. Fill in the blanks with words from the vocabulary section:
Income often comes at fixed intervals, and unexpected ***expenses*** can pop-up. As a result, I should...

Possible Outcomes:

Be mindful of my spending habits and make sure to set aside money for "a rainy day."

Module 2 - Demystifying Personal Finance (continued)

4. What is the difference between a gross and net salary?

Possible Outcomes:

Gross salary is the amount of money that you earn based on your contract with your employer, while net salary is what you actually receive after deductions.

5. What are the benefits of setting up direct deposit from your employer?

Possible Outcomes:

With direct deposit, there is no need to wait for funds to be available. Plus, not only is it convenient, it is more secure than receiving paper checks and therefore helps keep your money and information better protected.

Module 2 - Demystifying Personal Finance (continued)

Chart 2.A: Assets vs. Liabilities

Possible Outcomes:

	Assets	**Liabilities**
Definition	Help you earn income over several years	What you owe others
Examples	• Business assets: factory building, machinery • Personal investments that earn you interest and dividend outcome	• Credit card debt • Car loan • Home mortgage

6. Assets must be ___>___ liabilities in order to remain solvent and avoid potential bankruptcy, so keep a list and update regularly! (<. >, or =?)

7. What kinds of questions should you ask when thinking about borrowing money/taking out a loan?

Possible Outcomes:

- What will I be using these funds for?
- What assets will I be acquiring?
- Do I really need to borrow this money?
- Are there any upfront fees in order to take out the loan?
- Can I afford the recurring payments each month?
- Will the monthly payment affect my ability to pay for other recurring expenses?
- How long do I have to repay the debt?
- Is there a penalty for repaying the debt early?
- How much is this going to cost me in the long run?
- Will borrowing help me earn income now (e.g. a business loan) or in the future (e.g. a student loan)?
- Will the debt affect my credit score?
- Do you have a high debt-to-income ratio?

Key Concepts:

A debt-to-income (DTI) ratio is the value of all of your monthly debt payments divided by your gross monthly income. If you have a high ratio, you might have trouble paying what you owe on time - which is a red flag for lenders. Usually, lenders don't want your DTI to exceed 33%.

Teacher Tip:

Remember that the best kind of debt is a debt of zero balance. Credit will be discussed in greater detail in Module 5, as students think about what financial institutions they want to become a member of and which accounts they want to set up.

Research & Planning Phase

Module 2 - Demystifying Personal Finance (continued)

8. Why should you think about retirement planning now?

Possible Outcomes:

If you start to save for retirement now, you are more likely to have a more comfortable future, as you can profit from compound interest and investment strategies. Retirement planning can also allow for tax-deferred savings. Social security only accounts for about 40% of a person's income after they retire, so the additional 60% needs to be made up somewhere! (Retirement income usually comes from a combination of Social Security, retirement plans sponsored by employers, personal investments, and continued employment.)

Key Concepts:

Compound interest is "interest received on interest." For instance, if you deposited $500 in an account that pays an interest rate of 1% each year, you'd make $5.00 the first year, thus totaling $505. However, the next year, the interest would be based on that $505 amount, so you would have $510.05 at the end of year two, and $552.31 if you saved for ten years.

Teacher Tip:

Have students calculate different scenarios for compound interest, and consider different tax policies and earning scenarios, i.e. saving pretax earnings or deterring taxes on interest, etc.

9. How does identity theft occur and how can you protect yourself?

Possible Outcomes:

Thieves can steal your identity by listening to personal conversations with others, watching someone type in personal identification information, illegally going through someone's possessions, mail, or garbage, using RFID readers, and even sending out "phishing" emails. To protect yourself, be vigilant, shred important documents, protect passwords, and change usernames/passwords periodically. You should also check your credit card balance regularly, and check your account balances to make sure they match your own calculations. Credit reports can be checked annually, and you can freeze your account if you suspect that something is wrong. Education and knowing the facts is of utmost importance.

Module 2 - Demystifying Personal Finance (continued)

10. List financial scams to keep an eye/ ear out for.

Possible Outcomes:

- A call stating your won a cash prize out of the blue
- A collection claim asking for personal information
- Links in emails to update log-in information that you did not request, etc.
- Fraudulent websites claiming to provide you with "free" credit reports. (See suggested resources for explanations of what to look out for, i.e. legitimate addresses and phone numbers, requests for unnecessary personal information, etc.)
- Make money quick schemes

Teacher Tip:
Have students read/listen to/watch stories from real identity theft victims to emphasize why protecting your information is so critical.

Key Concepts:

At the end of Module 2, students should have a solid understanding of the following concepts:

- It is important to start thinking about your future now.
- Having a better understanding of your finances will help you to better manage your financial life.
- Identity theft can affect your finances (i.e. credit score, ability to obtain credit, unemployment and/or social security benefits).

Suggested Resources

- Top 4 Reasons to Save for Retirement Now: https://bit.ly/iblocks_save-now
- Report and recover from identity theft: https://www.identitytheft.gov/#/
- Jo from Jovia | Cyber Security: https://bit.ly/iBlocks-jo-cybersecurity
- Fake Credit Report Sites: Cashing In On Your Personal Information: https://bit.ly/iblocks_fake-credit-reports

Module 3 - Career Planning

Task - Students will consider their career options, possible income, and financial targets for the future.

Goal - To determine an expected salary for a chosen career path.

Planning

1. Reflect on choosing a career based on salary vs. passion.

Possible Outcomes:

Answers to this question will be personal. Some students may feel that they would only be happy doing a certain job they love, even if it makes less money, while others might feel that they cannot be happy if they are unable to maintain a certain lifestyle. Those students might be more flexible with job opportunities in order to make a greater salary. Career advancement, flexible work hours/ locations, and benefits, may also play a role in student decisions.

Teacher Tip:
Depending on the comfort level of your students, you can debate this topic and research what others have said. Is it possible to have both? How? Note careers can be entrepreneurial in nature, including owning a small business.

Module 3 - Career Planning (continued)

Chart 3.A: Career Interests
Research careers that interest you.

Possible Outcomes:

Career	Starting Salary	Job Requirements	Benefits
Nurse Practitioner	$100,000	Master of Science in Nursing Valid Registered Nurse and Nurse Practitioner licenses Board certification - Successful completion of national certification exam Excellent communication skills	Health 401K Continued Medical Education (CME) Malpractice insurance Paid time off (PTO)

Emphasize:
There is no "correct" answer when it comes to a career field of interest. Just make sure that students are within the correct salary range. Resources are provided below. Students should also think about non-monetary benefits and considerations (e.g. certain jobs may have more flexible schedules, work from home opportunities, etc.)

2. Which career most interests you? What are the costs associated with this career, i.e. college, training, etc.? What are some options for off-setting or reducing these expenses?

Teacher Tip:
Encourage students to think not only about monetary costs, but loans, debt repayment, and reasonable timetables for achieving these goals. They should also consider applying for scholarships. See the resources section for additional information.

Module 3 - Career Planning (continued)

3. List goals you would like to set for the future (these can be thought of as "wants" like type of home, family/children, travel, etc.) and explain what the financial needs of those goals might be.

Possible Outcomes:

Answers will vary. Students may want to own a large home, a particular vehicle, or want to be able to travel internationally each year, etc.

4. What are some needs, taxes, and recurring expenses you expect to have in the future?

Possible Outcomes:

- Income taxes
- Social security
- Medicare
- Property taxes
- Homeowners or rental insurance
- Mortgage or rent payments
- Transportation costs (gas, bus/train fees, etc.)
- Car/vehicle insurance
- Food and groceries
- Utility bills
- Cell phone bills
- Pet insurance
- Monthly memberships/subscription services
- Life insurance
- Childcare
- Loans, etc.

5. Choose a career from your previous research and use an average or estimated salary from a reputable source to fill in the chart below.

Key Concepts:

Net income is calculated by first deducting any pre-tax contributions to benefits, withholding any federal, state, and local taxes, and then deducting any post-tax contributions to benefits. Benefits include health, dental, vision, life, legal insurances, paid or personal leave time, retirement benefits, etc. (Did you know? There are states that do not have a state income tax.)

Research & Planning Phase

Module 3 - Career Planning (continued)

Chart 3.B: Gross to Net Salary Information

Income Factors	**Description/ Examples**	**Value**
Yearly base income	Salary	
Paycheck frequency	• Weekly • Bi-weekly • Monthly, etc.	
Filing status	• Single • Filing jointly • Married filing separately • Head of household • Qualifying widower	
Children/ other dependents	Children = under the age of 17	
Other job income	If have second or third job	
Income not from jobs	• Other sources of income ‣ Interest ‣ Dividends ‣ Retirement	
Pretax deductions withheld	• 401K • Health insurance, etc.	
Deductions NOT withheld	• IRA • Student loan interest, etc.	
Itemized deductions	• Contributions that may be subtracted from taxable income • Charitable donations • Mortgage interest, etc.	

Research & Planning Phase

Module 3 - Career Planning (continued)

Chart 3.B: Gross to Net Salary Information (continued)

Income Factors	**Description/ Examples**	**Value**
State income tax	Rate (%)	
City income tax rate	Rate (%)	
Self-employed?	Or independent contractor? • Yes • No?	
Net salary	What you take home	

Teacher Tips:

- Students can use an online calculator to estimate deductions - see the net salary calculators in the Suggested Resources section.
- This is also a good time to have students view a sample paycheck and pay stub and identify how to read them and what information they contain, i.e. pay period start and end dates, taxes, deductions, paid time off (PTO) balances, etc.
- If a student is self-employed, they can make estimated tax payments because no tax is withheld from their income.
- It is suggested that you have students determine their take-home pay in a "first job" scenario; meaning, they should be filing single, no dependents, contributing an appropriate amount to healthcare/401K for an entry level position in their career of choice.

Research & Planning Phase

Module 3 - Career Planning (continued)

6. Play around with different variables in the calculator. How does marriage filing status and other variables affect the amount of money you take home? What about tax filing?

Possible Outcomes:

Filing a joint tax return with your spouse can sometimes be a tax benefit. Income is combined when filing in this manner, so one person might get pushed to a lower tax bracket, or one or both may be bumped to a higher one depending on the earnings.

Teacher Tips:

- Have students think about the importance of sharing financial goals and personal finance information with a partner before combining finances. "Why does this matter?" Additionally, students can also practice filling out a W-4 form.
- You may choose to have students fill out an additional Chart 3.B. Gross to Net Salary Information based on life goals/changes (i.e. getting married, having children, buying a home, contributing more to retirement as they age, etc.).

7. Why isn't a high income a guarantee that someone won't run out of money?

Emphasize:

Having a high income is not a guarantee that someone won't run out of money. Have students review data, such as https://cnb.cx/3RqG3Rt, and discuss their findings. Keep an eye out for unexpected expenses, such as rising heat bills during the winter, inflation, etc.

Checkpoint:

At the end of Module 3, students should also have a value for a net salary to work with as they proceed to the next module and be aware of student loans or other debts they may need in order to achieve their goals.

Suggested Resources

- Take-Home-Paycheck Calculator: https://www.calculator.net/take-home-pay-calculator.html
- Salary paycheck calculator: https://bit.ly/iblocks_paycheck-calc
- Occupational Employment and Wage Statistics: https://bit.ly/iblocks_wage-stats
- Scholarships from Jovia Financial Credit Union: https://www.jovia.org/learn/scholarships

Design & Construction Phase

Module 4 - Create a Budget

Task - Students will establish a budget that considers factors such as income, loan repayments, and expenses.

Goal - To create a budget that includes both committed and discretionary expenses.

Vocabulary:

- **Amortization (noun):** the process of paying off (reducing) a debt with regular payments
- **Committed (adj):** bound or obligated
- **Discretionary (adj):** for use/purpose as one chooses
- **Principal (noun):** money a person originally agrees to pay back a lender/the money lent to a borrower. Principal can also be the money put into an investment.

Budgeting

1. Why should you maintain a budget?

Possible Outcomes:

Budgets can help you ensure your financial future and help you attain your financial goals. Budgets also help you manage your accounts so that your spending does not exceed your earnings (i.e. your expenses should not exceed your income).

Module 4 - Create a Budget (continued)

2. Do you think it is better to keep a weekly or monthly budget? Why?

Possible Outcomes:

This question may lead to some discussion. Some people feel that weekly budgets provide greater control, but others feel that they are usually inaccurate, while monthly budgets are easier to maintain. Regardless, having a budget is an important step to securing your finances.

3. What is the 50-30-20 budget rule?

Possible Outcomes:

This budget rule states that after tax income, 50% should be spent on needs, 30% on wants, and the remaining 20% should go to savings.

4. Research and summarize the purpose of different budgeting methods.

Possible Outcomes:

- 50-30-20: categorizing "needs" over "wants"
- "Pay-yourself-first": savings and debt repayments are prioritized first.
- "Zero-based": maintaining consistent income and expenses (income - expenses = 0). If you go over budget in one category you need to take from another.
- "Envelope system": similar to the zero-based budget, but with actual cash.

Module 4 - Create a Budget (continued)

Chart 4.A: Committed vs. Discretionary Expenses
Review the following list of expenses. Identify if they are a committed expense or discretionary expense. For committed expenses, write an "N" after the term to indicate that it is a "necessity". For discretionary expenses, mark a "W" for "wants."

Possible Outcomes:

Expense	N/W?
Housing (Mortgage or Rent Payment)	N
Utilities (Electricity, Water, Gas)	N
Streaming Services or Cable	W
Entertainment	W
Dining Out	W
Groceries	N
Phone	N
Internet	N
Home or Renter's Insurance	N
Travel	W
Transportation or Automobile Expenses (Gas, Insurance, etc.)	N
Minimum Loan Payments	N
Gifts/Donations	W
Child Care	N
Clothing	W

Teacher Tip:

Some of these expenses may be debated. Some things may be a necessity for one person, but a want for another, and vice versa. Additionally, subcategories within each expense could be contested. For instance, are "organic" fruits and vegetables a necessary grocery or a want? It might be necessary for some to buy organic, but a simple desire for others. What other expenses might be hard to separate? Consider bringing the class together for a discussion on these ratings. You can also have students consider any other variables that may not be listed above.

5. What is an emergency cash fund and what should it cover?

Possible Outcomes:

An emergency cash fund is a savings fund covering at least 3-6 months of expenses to ensure financial safety as a contingency plan. It can be used for unexpected job loss, medical emergencies, home fixes, and car repairs.

Key Concepts:

Emergency cash funds don't necessarily need to be kept as "cash" or paper money. They can be kept in checking, savings, and money marketing accounts too. It is important that mature members of a household know how much there is and where it is kept in case it is ever needed.

6. Why should you avoid using a credit card for emergencies?

Possible Outcomes:

A credit card does not give you free money, so you should avoid using them when balancing your budget. You also want to make sure to avoid having multiple credit cards that you are unable to afford.

7. Practice with loan amortization: Using a loan term calculator, what would be the total amount to be repaid if you borrowed $5000 for a 5% interest rate over a period of 24 months? What would your estimated monthly payment be?

Possible Outcomes:

The total interest to be repaid would be $264.64. Therefore the total amount to be repaid would be $5,264.64. The estimated monthly payment would be $219.36.

Emphasize:

The 5% interest rate is for a 12 month period, so the monthly interest rate in this example is actually 0.42%.

Teacher Tip:

Have students explore and calculate other examples. Consider following this module with questions from Extension Module 10, for students to write their own simulation formulas.

8. How can you pay less interest and be rid of debt faster?

Possible Outcomes:

You could pay an additional amount each month. In the example above, if you paid an additional $25 each month, you could pay off your loan 3 months early with $28.01 less in interest (10.58%).

Emphasize:

Note that while the amount of interest over time will technically be less, the actual interest rate will remain the same. This is a subtle distinction. Have students understand that compounded payments will work best if you pay your highest interest rate loan/lowest balance first (e.g. it is better to make additional payments to your high-interest car loan before putting additional money towards your low-interest mortgage).

Module 4 - Create a Budget (continued)

9. How does the above scenario affect your budgeting plan?

Possible Outcomes:

In order to be debt free faster, I would want to set aside more money for loan repayments and spend a little less on "wants" during that time.

Teacher Tip:

In most cases, students should base their budget and financial plan on a post-secondary entry level position assuming they are not yet married/ don't have dependents. You can also have students compare their budgets in the future to their budgets today. Students should also consider their future goals, and how their budget affects their decisions (e.g. when and how many children to have, etc.).

Chart 4.B: Budget
Using the information you compiled above, construct a monthly budget that includes both committed expenses and discretionary expenses.

Possible Outcomes:

Net Salary (This includes deductions for medical insurance, mandated income taxes, and 401k/retirement plans.)	$5,798 per month
Committed Expenses (Necessities)	
Housing (mortgage or rent payment)	$1900
Utilities (electricity, water, gas)	$165
Groceries	$450
Phone	$75
Internet	$75
Home or Renter's Insurance	$13
Transportation or Automobile Expenses (gas, insurance, etc.)	$125
Minimum loan payments	$50

Design & Construction Phase

Module 4 - Create a Budget (continued)

Chart 4.B: Budget (continued)
Using the information you compiled above, construct a monthly budget that includes both committed expenses and discretionary expenses.

Possible Outcomes:

Discretionary Expenses (Wants)	
Streaming Services or Cable	$30
Dining Out	$300
Entertainment	$50
Travel	$350
Gifts	$100
Savings/ Investments	
Emergency Fund	$1,160
Investments (separate from 401k/ employer sponsored retirement plan)	$500
= Money left for a rainy day	$455

Teacher Tips:

- If needed, encourage students to create their own table or add rows to meet their budgeting requirements. Remember that the net income number should come from the previous module: Career Planning. If students are struggling to find a credible salary range, you can also assign example salaries, if needed.
- Extension activity: ask students to extrapolate this into an annual budget or make a 5-year plan/goals.
- Encourage students to be as realistic with this information as possible, i.e. they should not be throwing out random estimates for each budget item, but doing research and having sources that show their budget is realistic (e.g. what are rents like in the area they want to live? Will they live in a studio, with roomate, etc.)

Module 4 - Create a Budget (continued)

10. What should you do if your expenses are greater than your income?

Possible Outcomes:

If what you owe is greater than the amount of money you are taking in, you should review your current budget and reduce your expenses. You can also look for additional sources of income, if necessary.

11. What should you do if your income increases?

Possible Outcomes:

If your income increases, you should keep your expenses steady so that you can increase your savings. If you have any student loans, it is best to pay off as much as possible. You can also increase your emergency cash fund if necessary. Of course, once you are older/at retirement age, you can work fewer hours and enjoy more free time.

12. Making a budget is a good first step, but how will you maintain it?

Emphasize:
Having an organized system for record keeping is important for keeping track of spending, saving, and investments - and it is easier for making financial decisions. Encourage students to explore how they can best keep track of their own finances. Will they use an app or another method?

Key Concepts:

At the end of Module 4, students should understand the value in budgeting, the difference between needs vs. wants, what an emergency cash fund is, and how to determine loan amortization.

Suggested Resources

- How to Budget: https://bit.ly/iblocks_budget
- 5 Simple Budgeting Methods to Help You Live Your Best Life: https://bit.ly/iblocks_budget-methods
- Loan Repayment Calculator: https://bit.ly/iblocks_loan-repay
- Mortgage Calculator: https://bit.ly/iblocks_mortgage
- Simple Interest Vs Compound Interest: https://bit.ly/iblocks_interest

Module 5 - Savings, Banking, and Credit Scores

Task - Students will identify and prepare materials needed for opening new bank and credit accounts.

Goal - To determine which financial accounts to set up.

Vocabulary:

- **CD (noun):** also known as a certificate of deposit, this is a type of savings account that holds a fixed amount of money for a fixed period of time. Once a CD is redeemed, the issuer also provides interest gained.
- **Credit (noun):** the ability of a consumer to acquire goods or services before payment, based on the trust that payment will be made in the future
- **Finance Charges (noun):** interest or fees charged for buying on credit or borrowing money

Banking & Credit

1. Why should you have both a checking and savings account?

Possible Outcomes:

Checking accounts are meant for day-to-day transactions, including spending, withdrawing cash, and paying bills. Savings accounts are meant to be for long-term savings and allow for easy access to money in case of unforeseen circumstances.

Teacher Tip:
Discuss the pros and cons of having a checking and savings account at the same institution vs. different ones, i.e. convenience and waived fees vs. increased financial security, etc. Interest rates and fees vary between financial institutions due to market competition and conditions, such as number of borrowers, etc.

Module 5 - Savings, Banking, and Credit Scores (continued)

2. Compare and contrast banks and credit unions.

Possible Outcomes:

Both are federally insured. Banks are about the shareholder, in other words, they are more "money-centered." Credit union members have an actual share in the credit union and, therefore, the unions are more focused on their members. They often have lower interest rates on loans and accounts and are non-for-profit.

3. What is the difference between a credit card and a debit card?

Possible Outcomes:

Credit cards are backed only by your personal assurance to pay back the debt, whereas a debit card is backed by your bank balance. When you use a debit card, you are not borrowing money, and therefore you do not incur any interest. Debit cards are like using cash, and hence, do not help or hurt your credit history. When you use a credit card, you are borrowing money. As a result, you have to repay that amount, and if you have any outstanding balances, you have to pay interest, as well.

Key Concepts:

It is harder to get your money back if your debit card info is stolen and money is withdrawn from your account. Credit card companies can reverse charges on your account with proof that you did not make a particular charge.

Teacher Tip:
You can also use this time to discuss when checks and money orders are used and demonstrate the correct way to fill them out.

Design & Construction Phase

Module 5 - Savings, Banking, and Credit Scores (continued)

4. When should you use a credit card?

Possible Outcomes:

Credit cards provide convenience and ease when shopping, so you don't need to carry around a lot of cash or a checkbook. They can also help you build your credit history and improve your credit score. Many credit cards also have different types of rewards benefits.

Key Concepts:

Remember that credit cards should NOT be used for things you cannot otherwise afford to buy. Always pay your balance in full by the due date and avoid paying any interest on the balance. Typical credit cards usually have high interest rates (upwards of 15% or more). Also remember, you will not reduce your debt by moving what you owe from one credit card to another.

5. Why are credit scores important and how can you keep them high?

Possible Outcomes:

A high credit score means that you can borrow more money for a longer period of time. Lower credit scores result in higher interest rates and fees, so maintaining a high credit score is important. This information can decide whether you will be able to make large purchases such as a vehicle, house, etc. You can maintain a high credit score by making sure to pay your bills on time, having good income, not bouncing checks, using credit cards wisely, and not having too many, etc.

Key Concepts:

If you run into a situation where you cannot pay your credit balance in full, you should pay a little more than the minimum amount due on a timely basis. It is important to make sure you do not have too much of a balance on your debts!

6. Where can you find your credit report?

Possible Outcomes:

A free copy of your credit report can be requested each year from TransUnion, Experian, or Equifax.

Module 5 - Savings, Banking, and Credit Scores (continued)

7. What types of information are included on a credit report?

Possible Outcomes:

Credit card reports include credit card, student loan, and mortgage accounts and balances, the length of each account, payment history, and any hard and soft inquiries made into your account by potential lenders.

Key Concepts:

Hard and soft credit inquiries are checks into your credit report. Hard inquiries require you to give permission to someone (such as a lender) to check, and they can have a temporary, but negative affect on your credit score. Soft inquiries don't necessarily require permission and do not affect your credit score.

Hard credit checks may be done for the following reasons: applications for loans, a new apartment or mortgage application, credit cards, etc.

Soft credit checks may also be done for a new apartment application, but are often done for background checks for a new job, pre-qualified credit card offers, insurance quotes, etc.

8. What is a FICO Score?

Possible Outcomes:

A FICO score is a three-digit number that is based on the information found in your credit report. Basically, it helps lenders determine how likely it is that you will repay a loan.

Teacher Tip:

FICO stands for "Fair Isaac Corporation." If you are looking to include some history into your lesson, have students look into the background of its origin. Before FICO, a popular method for determining credit was based on the consumer's character, which could be subjective. The purpose of FICO, created by engineer Bill Fair and mathematician Earl Issac in 1956, was to use data to help promote wise business decision-making.

Design & Construction Phase

Module 5 - Savings, Banking, and Credit Scores (continued)

9. Answer: What is a desirable FICO score? Then, fill in the charts below.

Possible Outcomes:

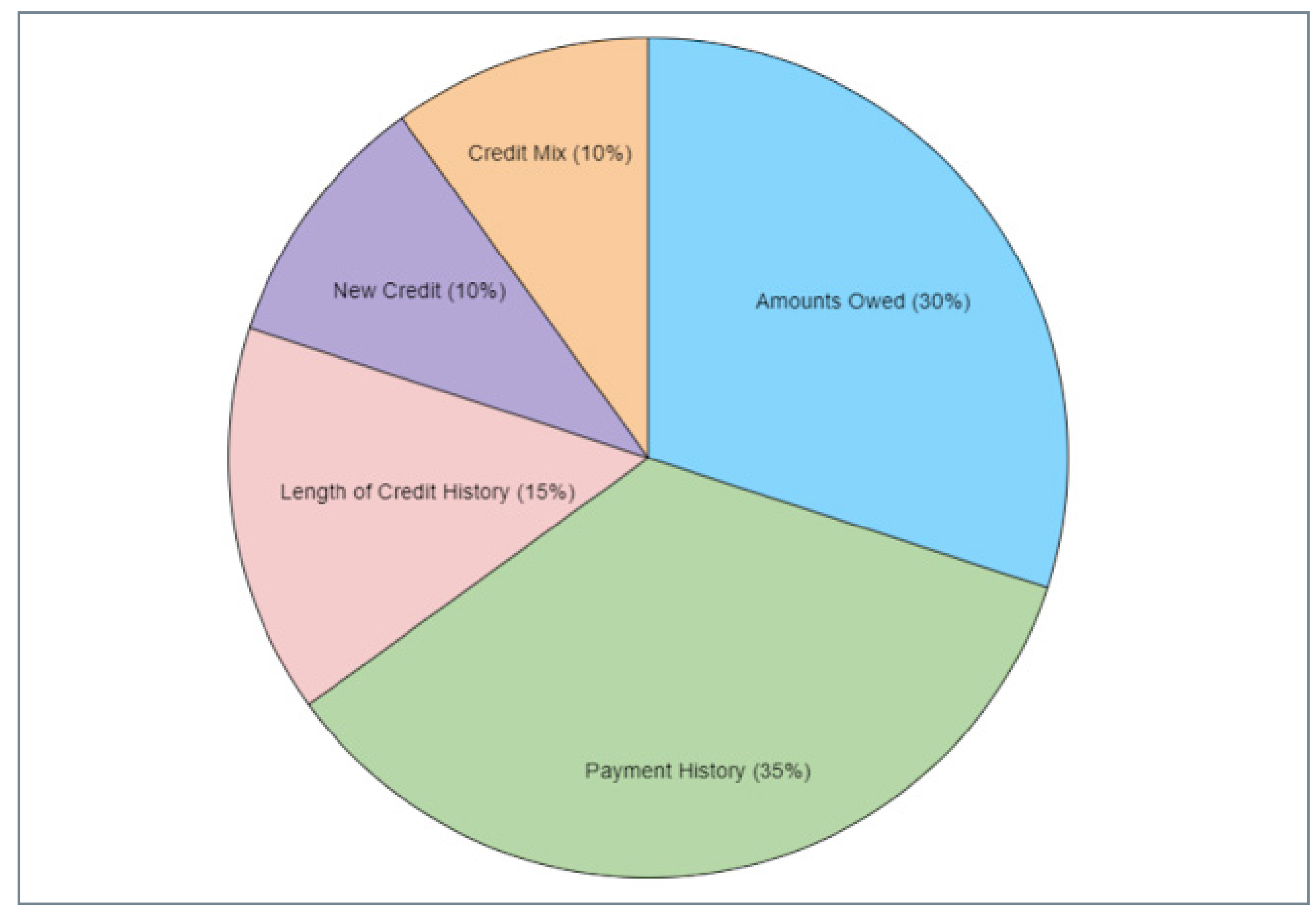
An exceptional FICO score is between 800-850, while a very good score is 740-799.

Teacher Tip:

Note that there are different FICO score ranges (FICO-8, FICO-9, etc.) and each one is used with a slightly different skew for auto loan v. mortgage v. personal loan v. student loans, etc.

Chart 5.A: FICO Score Breakdown
Create a chart to illustrate the breakdown of the elements that determine a FICO score.

Possible Outcomes:

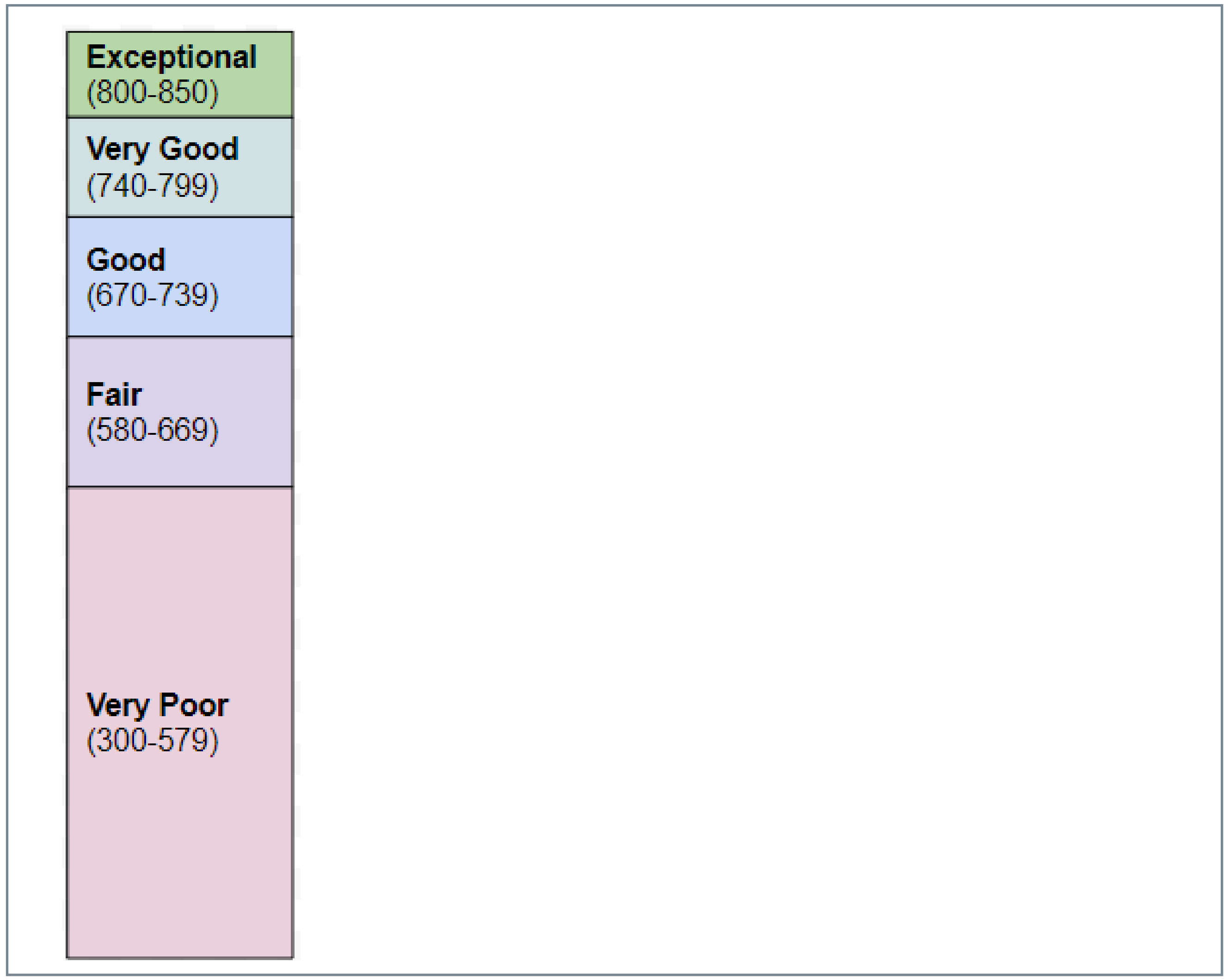


Design & Construction Phase

Module 5 - Savings, Banking, and Credit Scores (continued)

Chart 5.B: FICO Score Ratings
Create a chart to illustrate the breakdown of the elements that determine a FICO score.

Possible Outcomes:



10. Do you already have an account with a banking institution? If so, are you happy with it? Why or why not?

Design & Construction Phase

Module 5 - Savings, Banking, and Credit Scores (continued)

Chart 5.C: Financial Institutions
Research some different financial institutions and account types. Which would you want to become a member of?

Possible Outcomes:

Institution	Jovia Financial Credit Union		
Types of accounts	Checking, Savings, Money Markets, Certificates, Youth, IRAs, and Health Savings		
Minimum balance requirement	$5 to open savings account		
Are there holds on deposits?	Immediate availability with cash deposits at approved ATMs		
Withdrawal limits	$1,000 daily		
Associated fees	Withdrawing/transferring from savings more than 6 times/ month will result in an Excess Savings Transaction fee.		
Online/ mobile banking options	Yes, including Zelle		
ATM fees	None at Allpoint(R) Network ATMs (55K+) or branch locations + With a Go Green Checking Account, you can get up to $20 per month for any out-of-network ATM fees incurred!		
Interest rates	0.100%		
Assurance	Insured up to $250,000 by NCUA		

Module 5 - Savings, Banking, and Credit Scores (continued)

Chart 5.D: Credit Providers
Research some different credit providers. Which would you want to become a member of?

Possible Outcomes:

Provider	Jovia Visa ® Advantage card		
Interest rate (APR)	1.99% for the first 12 months, then 9.49% - 17.99% APR		
Credit limit	$20,000		
Late payment forgiveness	No, but a 10 day grace period from the due date.		
Ability to choose payment due date	No, but there is a form to request change of due date.		
Perks/ rewards	1.99% APR on purchases and balance transfers for the first 12 months .		
Balance transfer fees	None		
Annual fees	None		
Foreign transaction fees	None		
Approval odds	Ideal for those just starting out/ needing to build credit - credit check with Trans Union		
Best for	Balance Transfer - If looking for more rewards, check out Elite card instead		

Design & Construction Phase

Module 5 - Savings, Banking, and Credit Scores (continued)

Emphasize:
Answers will vary, but students should ideally look for institutions that will help keep their finances secure and meet their future goals. This information will be added to their financial plan. Students can use the provided tables to do their due diligence on financial institutions and credit providers, but should be encouraged to add in any notes they feel relevant to achieving their goals.

11. What financial institution(s) and type of account(s) will you choose for your financial plan and why did you make this choice?

Possible Outcomes:

Students may have a number of different reasons for choosing their financial institution(s). Their considerations may include the minimum balance that is required to avoid monthly service fees, if a direct deposit removes any monthly fees, if there are fees for using ATMs, if there is the ability to pay bills via mobile or online, if account holders will receive alerts for unusual activity, if they feel more secure having multiple accounts, etc.

12. What credit provider(s) will you use for your financial plan and why did you make this choice?

Possible Outcomes:

Answers will vary, but considerations can include interest rates, credit limits, perks, late payment forgiveness, ease of approval, etc.

Design & Construction Phase

Module 5 - Savings, Banking, and Credit Scores (continued)

13. What do you need to have in order to open an account? Create a checklist so you'll be all set and ready to go.

Possible Outcomes:

- First, be sure to check the eligibility requirements and to check with the individual institution.
- 2 forms of government-issued photo identification, i.e. valid driver's license or passport
- Social security number (or an individual taxpayer identification number)
- Official mail such as a utility bill with current address information
- Your full contact information (name, address, phone number, etc.)
- Proof of enrollment for student accounts (i.e. student ID, acceptance letter)
- Minimum deposit, if required

Checkpoint:
At the end of Module 5, students will have the tools necessary to choose financial accounts that make the most sense for their situation.

Suggested Resources

- Federal trade Commission website: www.consumer.ftc.gov
- Five Questions To Ask When Choosing a Bank: https://bit.ly/iblocks_choose-bank
- What is a FICO Score: https://bit.ly/iblocks_FICO
- Jo from Jovia: Credit Unions vs. Banks: https://bit.ly/iblocks_jo-unions-banks
- What Do You Need to Open a Bank Account?: https://bit.ly/iblocks_bank-account
- Checklist for opening a bank or credit union account: https://bit.ly/iblocks_account-checklist
- Jo from Jovia | Your Credit: https://bit.ly/iblocks_jo-credit
- Equifax - Free Credit Reports: https://bit.ly/iblocks_equifax
- Experian: https://www.experian.com/
- Transunion Credit Report: https://www.transunion.com/get-credit-report
- Difference Between Soft and Hard Credit Inquiries: https://bit.ly/iblocks_credit-inquiries
- Different FICO Score Versions: https://bit.ly/iblocks_FICO-score

Design & Construction Phase

Module 6 - Build Your Investment Portfolio

Task - Students will build a mock investment portfolio.

Goal - To understand the associated risks and rewards with different investment types.

Vocabulary:

- **Blockchain (noun):** a system in which cryptocurrency transactions are recorded and maintained. The chain denotes several computers that are linked in a "peer-to-peer" network.
- **Blue chip (noun):** a stock that is considered financially sound, consistent in earnings and cash flow, and generally of a large company with a strong brand.
- **Cryptocurrency (noun):** a type of digital currency, a unit of currency is denoted by an encrypted data string.
- **ETF (noun):** exchange-traded fund - an EFT is a pool of several investments and is professionally managed, rather than an individual share of a company. ETFs can be bought and sold on a stock exchange, unlike a mutual fund.
- **Financial bond (noun):** a loan from an investor to a borrower. Borrowers can include the government or a company. Bonds earn interest over time.
- **Investment (noun):** Investment (noun): an asset obtained to build wealth and save money.
- **Mutual fund (noun):** a company that combines the money from many people and invests it in stocks, bonds, and other assets.
- **NFT (noun):** non-fungible token - buyer owns original copy of a digital file, such as digital artwork, a game avatar, etc.
- **Share (noun):** unit of ownership in a corporation.
- **Stock (noun):** a part of the ownership of a company that people buy as an investment.

Teacher Tip:
Have students investigate how federal bonds provide inflation protection for savers.

Investing

Chart 6.A: Retirement Plans
Define and list the pros and cons of common types of retirement plans.

Possible Outcomes:

Retirement Plan	Definition	Pro	Con
401(k)	A company-sponsored retirement account	Employers can match employee contributions and there are high contribution limits.	Investment options may be limited, and it could take several years before you can own your employer's matching contributions.
Traditional IRA	An individual retirement account in which pre-tax income goes toward investments that can grow tax-deferred	Anyone can start an IRA and there are many investment options.	Limits for contributions are low.
Roth IRA	An individual retirement account for after-tax income	Roth IRAs are considered to be more flexible for contribution options and withdrawal age limits. With Roth IRAs, you can withdraw retirement savings tax free and thus pay less tax overall.	There are income restrictions and no tax breaks on contributions. Additionally, the contribution limits are low.

Key Concepts:

These are the most common retirement plans. However, there are other types of retirement plans including:

- Pension plan: a less-common employer sponsored retirement plan, also known as a "defined-benefit plan"
- SEP IRA: Simplified Employee Pension Plan (for small business owners/self-employed)
- Simple IRA: a type of small business retirement plan
- Solo 401(k): one participant plans, i.e. business owners with no employees

1. How can an investor buy stocks?

Possible Outcomes:

Investors typically need to have a brokerage account in order to buy stocks. Then, they go to an exchange, which is a licensed venue for buying and selling.

Key Concepts:

In the U.S., major stock exchanges include the New York Stock Exchange (NYSE) and the Nasdaq market. Note that you must be at least 18 years old to open a brokerage account, otherwise you would need to be under a custodial account.

2. What are stock market indicators and when is the best time to buy and sell stocks? Why?

Possible Outcomes:

Stock market indicators are quantitative measurements, such as "market breadth" that help describe/predict market trends. (Note: A stock market index is a measure that helps investors compare current and past stock prices, and evaluate a market's performance.) Ideally, it is best to buy stocks when prices are low and sell when they are at a higher price so you can make a profit. There are market tendencies, such as time of the month and time of the day, that may influence when an investor buys and sells as well. For instance, stock prices tend to be lowest near a month's midpoint.

3. What do the terms "bull" and "bear" markets mean?

Possible Outcomes:

A bull market is optimistic - when the assets/security in a financial market continually rise. Usually this is by 20% after two declines of 20% each. Bear markets are the opposite and usually pessimistic, as markets are falling, usually 20% from recent highs. In other words, stocks decline in value in a bear market.

Key Concepts:

A metaphor to help remember which term is which, is that bulls thrust their horns upwards, while bears swipe their paws downwards.

Module 6 - Build Your Investment Portfolio (continued)

4. How do you know which stocks to invest in?

Possible Outcomes:

Choosing stocks isn't necessarily cut and dry, and requires a bit of "homework" on the investor's part. Considerations should include:

- What does a company's growth/trends in earning look like?
- Do they have long-term stability? Do they pay dividends? (Dividends are a sum of money that is paid regularly to shareholders by a company from their profits or reserves.)
- How does the company of interest compare to other similar companies?
- What is the company's financial well-being? i.e. How does the debt-to equity ratio compare to the market value?
- How well does the stock's price reflect the company's earnings (price-earnings ratio)?
- Are the company leaders trustworthy?

5. What are other investments you might consider? These can include physical investments.

Possible Outcomes:

- Real estate
- Digital real estate
- Mutual Funds
- EFTs
- Bonds
- Cryptocurrencies
- NFTs, etc.

Module 6 - Build Your Investment Portfolio (continued)

Chart 6.B: Cryptocurrencies
List at least 3 examples of cryptocurrencies, and an interesting fact about each.

Cryptocurrency	Interesting Fact(s)
Ethereum	• The crypto unit is known as "ether." (Ethereum is the blockchain network.) • Considered to be the second most popular digital token • Ethereum is a crowdfunded project and not only involves a mining network, but a software development platform as well. • One of the cofounders, Vitalik Buterin, was 19 when he created the idea for Ethereum.
Litecoin	• An early bitcoin spin-off • Transactions take less time than Bitcoin's. (2.5 min. vs 10) • It's code is LTC.
Dogecoin	• "Doge" is the mascot of Dogecoin - he's a Shiba Inu. • Dogecoin originated as a "joke." • Created by IBM software engineer. Billy Markus, and Adobe software engineer, Jackson Palmer. • Transactions are easy and fast - taking only a minute, where others can take up to 10.
Ripple	• Ripple's target audience is businesses. • The currency is known as XRP. • Ripple is coded in C++ as other cryptocurrencies are as well.

Key Concepts:

There are many forms of cryptocurrency. Others include: Dash, zCash, Tether, Cardano, Polkadot, Stellar, USD Coin, and Chainlink. Cryptocurrency is a relatively new concept and has not been tested over a long period of time. Additionally, due to it being decentralized and not federally insured, it is considered "volatile."

Module 6 - Build Your Investment Portfolio (continued)

Teacher Tip:

Continue the conversation: Why do you think cryptocurrencies have become so popular? Have students compare the pros and cons of crypto, then discuss as a class.

There are a variety of reasons cryptocurrency has become more popular. Some people see it as the future of money. Plus, fees are very low, and cryptocurrencies are not associated with world governments, so their value can remain stable even if a country is experiencing some kind of financial turmoil. You can also make a profit if you buy cryptocurrencies at a low price and that value ends up rising. Additionally, some find cryptocurrencies to be secure from a cybersecurity aspect, and pretty easy to obtain and use. The reason for this is because all transactions are verified against each copy of the digital ledger in existence. Therefore, if one person tried to change the value of something or create money they didn't have, it would not be accepted because this transaction did not match any of the other copies of the ledgers. Additionally, cryptocurrencies avoid the issues of exchange and interest rates. Despite these pros, cryptocurrencies still come with risks, especially due to volatility. The value of cryptocurrency is speculative. Both the demand and the news can lead to fluctuations, and there are still fears of scams as well. They are not federally insured.

6. What questions do you still have about investing and/or investment vehicles like stocks and cryptocurrencies?

Possible Outcomes:

- What does "mining" mean in the world of cryptocurrency?
    - ◊ *Crypto mining is a process for creating new digital coins, validating transactions, and preventing double-spending. Mining involves computers solving complex mathematical puzzles. Any computer dedicated to this process with their copy of the digital ledger, has the ability to earn coins as compensation.*
- Is crypto the future of money?
- What are the differences between public and private keys?
- What is an ICO or Initial Coin Offering?
- What businesses accept cryptocurrencies?
- Could a cryptocurrency be taxed?
- How is energy affected by crypto?
- How can the news affect the value of a cryptocurrency?
- Do NFTs involve any transfer of copyrights?
- How many cryptocurrencies exist worldwide? What about NFTs?
- How many people own NFTs?, etc.

Teacher Tip:

Have students research the answers to their questions and share as a class.

Module 6 - Build Your Investment Portfolio (continued)

Chart 6.C: Investment Risks

Rate the risk associated with the following investments.

Possible Outcomes:

Investment	Associated Risk
Bank Deposits	Low
Real Estate	Medium
Cryptocurrency	High
NFTs	High
CDs	Low
US Treasury Bonds	Low
Mutual Funds	Medium
Blue Chip Stocks	Low
Speculative Stocks	High
Income/Growth Stocks	Medium

Key Concepts:

Blue chip stocks are major/huge companies that have excellent reputations. They are well-established and financially sound. IBM and Coca-Cola are examples.

Higher risks can be associated with higher returns/gains, but experts often advise riskier investments to only be a percentage of your portfolio.

Design & Construction Phase

Module 6 - Build Your Investment Portfolio (continued)

7. Choose a few select investments to follow. Include at least one blue chip stock, one high risk stock, and one cryptocurrency. Why did you choose to follow these specifically?

8. Sketch and describe the trends for these investments over a month, over a year, and over 5 or 10 years if possible.

9. Which investment did the best? Explain.

10. Which did the worst? Explain.

11. Reflect: After viewing their trends, do you think they were worthwhile? Why or why not?

12. How will the information learned here affect your investment decisions in the future? Be sure to include details about your investment strategy to add to your financial plan.

Hint: Remember that your investment plans should be based on your budget. If your budget is too tight and you are unable to do a lot of investing initially, write out a plan/goal for future investments.

Possible Outcomes:

Answers will vary, and investments will show variability. Students should come away with the understanding that they will want to have a balanced portfolio that helps protect their assets, but can also provide opportunities for growth.

Teacher Tip:

Continue the conversation: "How does inflation affect a person's return on investment?" Discuss with the class that inflation reduces purchasing power over time. As a result, the "real rate of return" is typically lower than its "nominal return." This is because the nominal return must be adjusted to account for inflation and other variables, such as investing fees and taxes.

Design & Construction Phase

Module 6 - Build Your Investment Portfolio (continued)

Chart 6.D: Investment Decisions

Possible Outcomes:

Total Investment Budget (including retirement plans)	$1370 *$870 per month to 401k +* *$500 per month or $6000 per year separate from 401K/employer sponsored retirement plan **		
Investment Vehicle	Stock		
Name	Apple [AAPL]		
Allocated funds/ time	35% of investment funds*/buy in 1x per month ~$175		

Key Concepts:

Remember that money allocated to your 401K/other employer sponsored retirement plans is removed before you receive your net paycheck.

Teacher Tip:

Mini project idea: Have students brainstorm a cryptocurrency of their own design. What will it be called? Who would the target audience be? Would it solve some type of problem? How would it be promoted? What issues might arise in development and usage? As students think through these prompts, they may uncover even more questions, but also gain new knowledge, which may ultimately better help students understand this complex topic. Consider including questions from Extension Module 10, to further enhance student projects.

Checkpoint:

At the end of Module 6, students should have an investment plan, as well as a solid understanding of the differences between low and high risk investments.

Design & Construction Phase

Module 6 - Build Your Investment Portfolio (continued)

Suggested Resources

- Explaining 6 Key Types of Retirement Plans: https://amex.co/3ogcCVi
- 401(k) vs. Pension Plan: What's the Difference?: https://bit.ly/iblocks_pension
- TED-Ed: How do investors choose stocks? By Richard Coffin [video]: https://bit.ly/iblocks_ted-ed-stocks
- Fidelity risk calculator: https://bit.ly/iblocks_risk-calculator
- What is Cryptocurrency - How It Works, History & Bitcoin Alternatives: https://bit.ly/iblocks_crypto
- How Cryptocurrency ACTUALLY works: https://bit.ly/iblocks_how-crypto-works
- What is Crypto Mining? How Cryptocurrency Mining Works: https://bit.ly/iblocks_crypto-mining
- Bitcoin: https://bitcoin.org/en/
- Dogecoin: https://foundation.dogecoin.com/about/
- Student Coin: https://www.studentcoin.org/
- Real Rate of Return: https://bit.ly/iblocks_RRoR

Testing & Learning Phase

Module 7 - My Financial Plan

Task - Students will create cumulative financial plans and develop guidelines to evaluate their financial plans.

Goal - To create and evaluate the strength of financial plans.

Financial Planning

1. How can you make your financial plan both comprehensive and visually appealing?

Possible Outcomes:

Students should spend time deciding the best way to organize the various components they created in the previous phase. Answers can include notes about font and text size, data storage, the use of digital tools, and interactive elements as well. It will be helpful for students to show how all of the different parts are interrelated and not just separate pieces.

Emphasize:

Sections of their financial plan may need modifications over time. How will students adjust for these changes? Having backup spreadsheets and other related tools will be essential for ease-of-use.

Module 7 - My Financial Plan (continued)

Chart 7.A: Financial Plan
Compile all of your strategies into a cumulative financial plan. Plans should include:
a. Source(s) of income
b. A monthly budget
c. Savings and credit accounts
d. Investment plans
e. Clearly defined goals, etc.

Financial Plan:

Emphasize:

This is not new information, as students can use the work they have done in previous modules. However, they may choose to adjust some figures or strategies based on what they have learned. This section is meant for them to compile all of their previous work, check that figures/strategies work together, and make the information easy to digest and visually appealing.

Teacher Tip:

Students can use digital tools to design a financial plan complete with charts and goals. Consider using Google Workspace, Microsoft Office tools, Canva, Adobe, or other similar software to create a visually-appealing display. For more information on using these and other tools, visit OTIS.teq.com (subscription required).

Module 7 - My Financial Plan (continued)

Review

2. Who is your most trusted financial advisor?

Possible Outcomes:

You are - no one has the ability to protect your interests all the time, except for yourself!

3. How do you know if you have a “solid” financial plan?

Possible Outcomes:

Financial plans should include a comprehensive view of your finances, including cash flow, debt, savings, investments, and even insurance. Credit scores should be at or near excellent, you should be prepared to deal with debts/loans, and have a fund for emergency savings. Can you make purchases without feeling guilty?

4. When should you review your financial plan?

Possible Outcomes:

- Between and after milestones or transitions (i.e. new job, marriage, child, buying a home, etc.)
- When sorting through goals and priorities/or you just need to figure out “what’s next?”
- On a recurring basis, i.e. annually

Module 7 - My Financial Plan (continued)

5. Should you hire a financial advisor?

Possible Outcomes:

The answer to this varies for everyone, but if you don't feel you have all the right tools at your disposal, the knowledge, or the dedication to maintain an objective plan, it may be worth considering working with a financial advisor, especially if you are going to be making a life-change. Financial advisors may provide some with reduced stress and "peace of mind."

Chart 7.B: Financial Plan Feedback Rubric
Develop a rubric/guidelines in small groups. Your evaluation should be applicable to anyone using these measures.

Possible Outcomes:

- Financial goals are clearly defined (short, intermediate, and long term)
- Budget allows for saving
- All recurring expenses/bills are accounted for and broken down
- Plan demonstrates a clear understanding of maintaining excellent credit
- The financial plan is easy to comprehend and grammatically correct
- Potential issues/"hiccups" are identified
- Strategies for meeting goals are included, etc.

Teacher Tips:

- Students can create a traditional rubric where scores are delineated and defined, i.e.

Parameter	Needs Work	Fair	Good	Excellent

or rated on a scale:
[Needs Work] 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 - - - 7 - - - 8 - - - 9 - - - 10 [Exceptional]

- You may choose to assign certain parameters for the rubric (e.g. all rubrics must include sections for monthly budget, investments, and savings/credit accounts).

Module 7 - My Financial Plan (continued)

Emphasize:

- Students should be working collaboratively in small groups to create a rubric. They will then use this rubric to access and give feedback to a peer on their financial plan.
- Each group should be using a common rubric. Rubrics may be different between groups.
  - ◊ E.g. Group 1 creates a 1-5 scale rubric. Once the rubric is complete, they will trade financial plans with a peer in their group. Each student in Group 1 uses the rubric to assess their peer's financial plan.

Financial Counseling

6. Use the rubric your group created to give a peer feedback on their financial plan. Write any notes or things you'd like to discuss here.

Emphasize:

Be honest! Financial plans don't need to be perfect. This is a learning experience and finances are already variable!

7. Review and discuss your feedback from your "financial counselor." Note any areas of concern/ suggestions/edits.

8. Have any new questions emerged while you worked through this module? List them here.

Teacher Tip:

If time permits, have students research the answers to these questions and then share their findings with the class.

Checkpoint:

At the end of Module 7, students should have identified areas of improvement for their financial plans and be ready to address those changes in the following section.

Module 7 - My Financial Plan (continued)

Suggested Resources

- What Is a Financial Plan, and How Can I Make One?: https://bit.ly/iblocks_financial-plan
- Do I Need A Financial Advisor Or Should I Do It Myself? Here's When It's Worth It To Get A Financial Advisor.: https://bit.ly/iblocks_financial-advisor
- 10 Personal Finance Questions You Need to Answer: https://bit.ly/iblocks_finance-Qs
- Budget Scenarios: https://bit.ly/iblocks_budget-scenarios
- Rubistar Digital Rubric Creation Tool: https://bit.ly/iblocks_rubistar

Module 8 - Update Your Financial Plan

Task - Students will revise their financial plans.

Goal - To improve students' understanding of financial planning.

Revise

1. What did you learn from your financial plan review?

2. What specific changes will you make to your financial plan? Explain why these changes are advised.

3. Are there any items on your financial plan that you intend to keep a close eye on? (i.e. You won't change them now, but may need to make adjustments in the future?)

Teacher Tip:
Students should take some time here to make any adjustments to their plans.

Reflect

4. What elements were the easiest to adjust? Why?

5. What elements were the hardest to adjust? Why?

Possible Outcomes:

Student responses will vary. Encourage students to be open and honest in their reflections.

Testing & Learning Phase

Module 8 - Update Your Financial Plan (continued)

6. Compose an email to yourself that you will receive in _5_ years from now. What are your financial goals and what would you say to yourself about them? What would you want to remind yourself in the future?

Teacher Tip:
You can adjust the time frame as needed, i.e. 5 years, 10 years, etc. Utilize a service like "FutureMe" to actually send these emails if allowed.

7. What do you think your reaction will be to receiving this email? Explain.

Checkpoint:
At the end of Module 8, students should have a completed financial plan that they feel confident in.

Suggested Resources

- 5 Easy Steps to Follow To Reach Your Financial Goals: https://bit.ly/iblocks_financial-goals
- FutureMe: Write a Letter to the future: https://www.futureme.org/

Share & Showcase Phase

Module 9 - Present Your Financial Futures Map

Task - Students will present on the process of creating their financial plan.

Goal - To be able to articulate the importance of financial planning.

Reflection

1. Write at least five key takeaways you learned after working through the previous modules.

Possible Outcomes:

- It is important to be able to differentiate between your needs and wants.
- Saving is wise, and you should think carefully before spending money on unnecessary things.
- It is okay to talk to someone trusted if you have concerns about finance matters
- If you save and invest wisely, you can become a millionaire, even without making a huge salary.
- You should live within your means.

2. What challenges did you face and how did you meet those challenges? Did you have any surprises during the process?

3. What do you most want to share with others after doing this project?

Module 9 - Present Your Financial Futures Map (continued)

Prepare & Present

Chart 9.A: Presentation Planning
Use the chart below to help you plan how you will share your learning.

Possible Outcomes:

Financial Futures Map	
Goal	What is the purpose of presenting a financial futures map/guide? Note: this is a goal for their presentation, not for the financial plan itself. e.g. • To share what students have learned throughout the course of this project • To provide others with tips & tricks for creating their own financial plans, etc.
Presentation Type	• Infographic • Roadmap • Board Game • Video Game/App • Virtual "Tour"/Slideshow • Discussion Panel • Financial Literacy Workshop/Webinar
Audience	• Peers • Families
Organization	How will the presentation be organized?
Sketches/ Additional Notes	

Module 9 - Present Your Financial Futures Map (continued)

Teacher Tips:

- Students can also create their own 'financial planner' mobile app with MAD-learn. Follow the link in the resources section for more inspiration.
- Encourage creativity in the presentation, but be sure they are reasonable for the students' capabilities, available resources, and time constraints.
- You may choose to give students more structured constraints, such as a choice between 3 types of presentation (e.g. an infographic, a roadmap, or a financial plan video tutorial).

Emphasize:

One of the best ways to showcase knowledge and continue the learning process is to teach others. Students should aim to educate others on financial planning, using their own financial plans as examples of key points. Whether they will be presenting their projects to younger students, parents, or community members, they should aim to share any knowledge they think will be helpful to others.

Checkpoint:

At the end of Module 9, students should have planned, created, and delivered a presentation on what they learned from their financial planning journey.

Suggested Resources

- The Infographic Guide to Personal Finance: https://bit.ly/iblocks_infographic-guide
- Financial Freedom Roadmap example: https://bit.ly/iBlocks_Financial-Roadmap
- The Financial Planning Process: https://bit.ly/iBlocks_Fin-Planning-Process
- MAD-learn: https://mad-learn.com/
- MAD-store: https://mad-store.mad-learn.com/

Extensions

Module 10 - Financial Forecasting

Task - Students will write formulas for calculating different financial scenarios.

Goal - To explore how calculations and programming can be applied to finances.

Calculate

Teacher Tip:

Module 10 is optional and can be done anywhere in the iBlock you feel most appropriate. We suggest including this section after Module 4: "Create a Budget" for students to calculate their own financial simulations, or after Module 6, when students learn about cryptocurrencies. However, this module is adaptable based on your needs.

1. How can computer programming be used in finance?

Possible Outcomes:

- Financial modeling
- Running simulations
- Developing trading platforms
- Managing financial systems
- Derivative pricing, etc.

Key Concepts:

"Fintech" is a term to describe computer programs and technologies used to support and/or enable financial services and banking.

Extensions

Module 10 - Financial Forecasting

2. What are some of the most used programming languages in finance?

Possible Outcomes:

- Python - pricing, trade and risk management
- Java - security, e-commerce platforms, banking apps, and trade algorithms
- C++ - machine learning, AI, software and operating system development

3. Are any other languages used in blockchain programming?

Possible Outcomes:

Yes, in addition to the programming languages listed above, there is Solidity (developed by the creator of Ethereum), Javascript, and PHP (Hypertext Preprocessor), C#, Go, Simplicity, Ruby, Rust, and more! .

Extensions

Module 10 - Financial Forecasting (continued)

Chart 10.A: Scenarios for Calculation
Use spreadsheet software, such as Microsoft Excel or Google Sheets, to calculate one or more of the following scenarios. Be sure to create a formula that allows you to change/replace the variables to adapt for different situations.

Possible Outcomes:

	A: Millionaire Status	B: Loan Amortization	C: Financial Need
Scenario	How much money would you need to set aside each paycheck to become a millionaire by age 65?	Determine monthly payment amount	Determine financial need for a college/ university.
Adjustment	How long would it take to become a millionaire if you set aside "x" amount of money (e.g. $2500) each year?	Determine length of a loan based on the "x" amount paid each month.	How does this value change for different institutions?
Considerations	• Starting age • Initial deposits • Taxes • Interest • Inflation	• Principle • Interest rate • Time (years) • Number of monthly payments per year • Interest accrued • Monthly payment amount	• Cost of Attendance (COA) • Enrollment Status • Expected Family Contribution (EFC)

Extensions

Module 10 - Financial Forecasting (continued)

Chart 10.A: Scenarios for Calculation (continued)

Possible Outcomes:

	A: Millionaire Status	B: Loan Amortization	C: Financial Need
Formula	**FV = PV * (1 + r/n)n*t** FV = future value PV = present value r = nominal interest rate (from your annual savings) n = compounding period (# of periods interest rate is compounded annually) t = duration in years/ maturity (how long the $ accumulates)	$A = P\frac{i(1+i)^n}{(1+i)^n - 1}$ A = periodic payment amount P = amount of principal, net of initial payments i = periodic interest rate n = total number of payments	**Financial Need = COA - EFC** COA factors in tuition, fees, room and board, supplies, equipment, books, transportation, etc. EFC is based upon income and assets from the student and parent as well as their family size and if they have other students in college, demographics, etc.

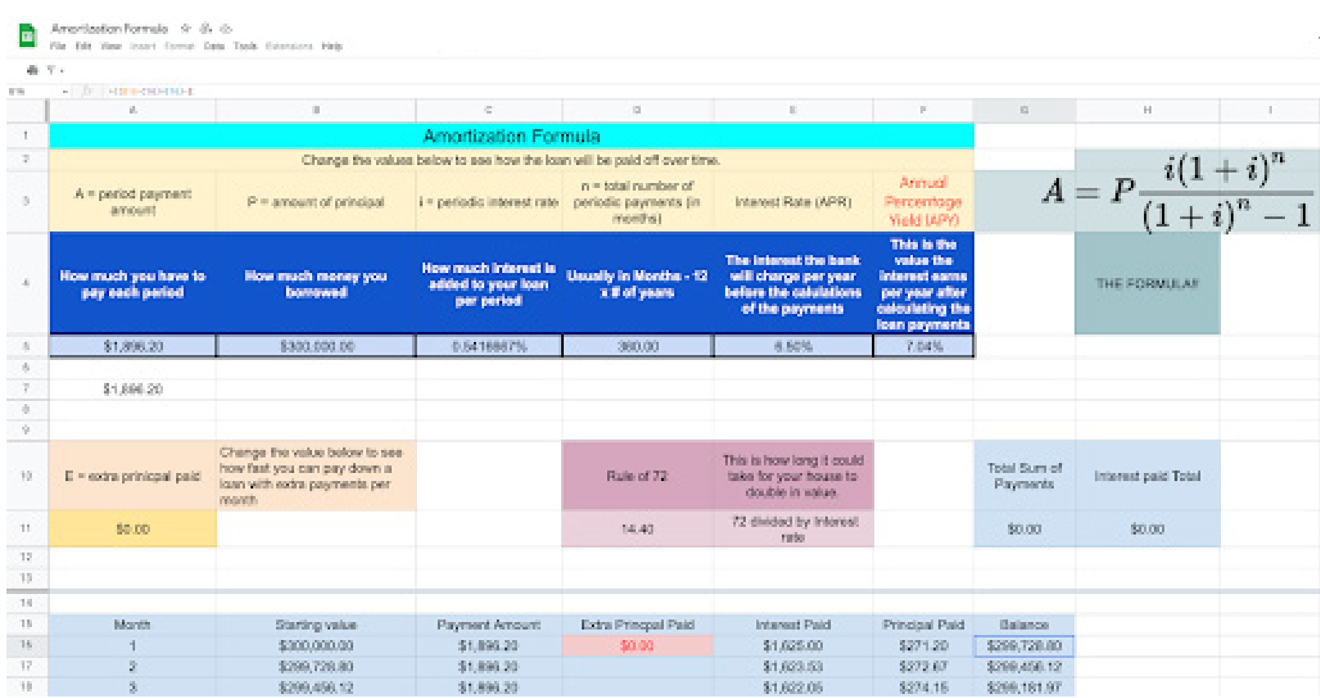
Extensions

Module 10 - Financial Forecasting (continued)

Teacher Tips:

- Have students fill in the considerations. If they get stuck, feel free to work these out in groups/together as a class.
- Review students' formulas before they begin any calculations, or alternatively, let them determine if the outcomes make sense and share with peers for quality assurance.
- Don't feel limited to these examples alone. Consider mortgages, investments, and more. If your students are ready for advanced coding/programming skills, have them use a specified coding language to create a calculator and interface for determining the chosen scenario(s).
- If your students are not familiar with spreadsheet tools like Excel or Google Sheets, now is a great time for a mini-lesson on how to use some of the more common features, or an opportunity to teach more in-depth tools like formulas, pivot tables, etc. (depending on the level of your students)

Possible Outcomes:



Emphasize:

When using a spreadsheet application, be sure to let the student experiment by changing values of percentage rates, adding additional principal payments, or the length of terms of payment.
Possible formula in spreadsheet software for loan amortization:

=P*(i*((1+i)^n)/(((1+i)^n)-1))

=B4*(C4*((1+C4)^D4)/(((1+C4)^D4)-1))

Extensions

Module 10 - Financial Forecasting (continued)

4. Did any new questions arise as you worked through this module? List them here, then explore the answers. Record notes in the space provided.

Possible Outcomes:

- What is an APR? - Annual Percentage Rate
- Is SQL ever used in financial programming? What does it stand for? - Yes (especially large databases) - Structured Query Language
- What is Excel's programming language? - VBA - Visual Basic for Applications

Teacher Tip:

Students can choose to include this spreadsheet/formula or any of the examples or knowledge gained in their financial plan showcase (as applicable). Students can also compare their results with those of an online calculator for accuracy. See resources below.

Checkpoint:

At the end of this module, students should have successfully written formulas to calculate the provided scenario(s) and be able to show others how they did so.

Suggested Resources

- Programming: https://bit.ly/iblocks_programming
- Best Programming Languages for Finance & FinTech in 2022: https://bit.ly/iblocks_fintech
- How to Try to Become a Millionaire: https://bit.ly/iblocks_millionaire
- Millionaire Calculator: https://bit.ly/iblocks_mill-calc
- Omni Millionaire Calculator: https://bit.ly/iblocks_omni
- Sample Excel/Google Sheets for Loans Schedules: https://bit.ly/iblocks_calculators
- How Do Schools Calculate Financial Aid: https://bit.ly/iblocks_financial-aid
- Financial Aid Calculator: https://bit.ly/iblocks_fa-calculator

Glossary

Allocate (v): to distribute or give out for a specific purpose.

Assurance (n): confidence or certainty; insurance

Cumulative (adj): increases by additions; total.

Currency (n): a system of money in a particular country/area.

Deduction (n): a subtraction or taking away from something.

Forecast (v): predict or estimate a future event/trend.

Fund (n): a sum of money for a particular purpose.

Fundamental (adj): necessary or core; of central importance.

Institution (n): an organization or group created for a specific purpose.

Nominal (adj): an unadjusted rate in value (not accounting for inflation)

Recur (v): to occur again periodically or repeatedly.

Reputable (adj): having a good reputation; well-respected.

Scenario (n): an imagined sequence or development of events.

Daily Journal

Financial Literacy

You may have heard it said before, but it's never too early to start preparing for your financial future. In this **iBlock**, students will explore key concepts in personal finance and map out a plan in order to prepare themselves with a more secure financial outlook. Tasks include creating a budget, preparing savings & credit accounts, and building an investment portfolio. By the end of this project, students will showcase their work and be able to articulate the importance of financial literacy.

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