Financial Planning

Financial Planning Pre-/Post-Quiz ............................................................... 49

Lesson 1: Building the Future—Introduction to Financial Planning ............ 50
  One Two Punch Activity ........................................................................ 51
  You’ve Got the Power—of Compounding Activity .............................. 51
  One Two Punch Answer Sheet ............................................................. 53
  You’ve Got the Power—of Compounding Answer Sheet ..................... 54

Lesson 2: The Financial Pyramid ............................................................... 55
  The Financial Pyramid Activity .......................................................... 56
Pre-/Post-Quiz

Before launching this unit, print the “Financial Planning” quiz from the “Lessons & Worksheets” section of the site, or send students to www.scholastic.com/NextGeneration/Students to take an interactive version of the quiz and print their answers. Explain to your class that the quiz is meant to be a benchmark to assess their prior knowledge of the topic and will help you organize class discussions. The quiz can also be used as a post-assessment tool after students have completed the unit lessons.

QUIZ ANSWERS

1. A savings account that offers compound interest will grow more quickly than one that pays simple interest.
   - A. True
   - B. False

2. If you pay $100 a month on a $2,500 credit card debt with a 19% interest rate, about how much money do you think you’ll pay in interest by the time you pay off the debt?
   - A. $19
   - B. $190
   - C. $475
   - D. $700

3. If you want to earn interest rather than pay interest, which of these financial products should you own?
   - A. Line of credit
   - B. Credit card
   - C. Certificate of deposit
   - D. Mortgage

4. You’re out shopping and come across a great combination deal on a smartphone and tablet, but you don’t have the money to buy them. What’s the best financial plan for getting the items?
   - A. Use your credit card to buy them
   - B. Save money to buy them
   - C. Take out a quick loan to buy them
   - D. Write a check to buy them

5. What is a financial pyramid?
   - A. A financial strategy designed to earn interest quickly
   - B. A financial strategy that includes long-term capital investments only
   - C. A financial strategy that includes asset protection and accumulation
   - D. None of the above

6. Which of the following is not an asset?
   - A. Mutual fund
   - B. Savings account
   - C. Real estate
   - D. Credit card
   - E. Insurance policy

7. In a financial plan, which of the tools below helps with asset accumulation?
   - A. Credit cards
   - B. Homeownership
   - C. Insurance claims
   - D. Savings and investments

8. What role does insurance play in the financial pyramid?
   - A. It guarantees that assets and income are protected
   - B. It helps build and maintain one’s reputation
   - C. It helps cover day-to-day expenses
   - D. It grows in value, like a house

9. What is a bond?
   - A. A type of savings account that pays investors scheduled interest
   - B. An investment that provides the investor with shares of ownership in the government or a company
   - C. A type of long-term loan an investor makes to the government or a company and earns interest in return
   - D. An agreement to make scheduled investments in a company

10. A 401(k) is a retirement savings plan that is set up by an employer.
    - A. True
    - B. False
Lesson 1: Building the Future—Introduction to Financial Planning

Estimated Time: 2 hours

Type: Discussion and share, math calculations, presentations (by financial experts), in-class activities, take-home

Description: Students see the “whole picture” and learn how insurance will fit into their overall financial plans. Activities provide information and tools they will need to make informed decisions about protecting and growing their incomes in the future.

Learning Standards:
Financial Literacy: Planning and Money Management
Overall Competency: Organize personal finances and use a budget to manage cash flow.
Standard 1: Develop a plan for spending and saving.
Standard 6: Develop a personal financial plan.

Financial Literacy: Financial Responsibility and Decision Making
Overall Competency: Apply reliable information and systematic decision making to personal financial decisions.
Standard 2: Find and evaluate financial information from a variety of sources.
Standard 4: Make financial decisions by systematically considering alternatives and consequences.

Math Learning Standards for Grades 9–12 (National Council of Teachers of Mathematics)
Problem Solving: Instructional programs should enable all students to: build new mathematical knowledge through problem solving; solve problems that arise in mathematics and in other contexts; apply and adapt a variety of appropriate strategies to solve problems; monitor and reflect on the process of mathematical problem solving.
Connections: Instructional programs should enable all students to: recognize and use connections among mathematical ideas; understand how mathematical ideas interconnect and build on one another to produce a coherent whole; recognize and apply mathematics in contexts outside of mathematics.

Life Skills: Life Work
Standard 3: Manages money effectively. Benchmark 1. Prepares and follows a budget (e.g., develops spending plan, saving plan, record keeping system, investment plan, tracks budget performance).

Common Core State Standards for English Language Arts
Reading: Informational Text: CCSS.ELA-Literacy.RI.9-12.1–Key Ideas and Details: Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
Speaking and Listening: CCSS.ELA-Literacy.SL.9-12.1–Comprehension and Collaboration: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

Common Core State Standards for Mathematics
Number and Quantity: CCSS.Math.Content.HSN-Q.A.1: Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

Learning Objective: Students learn what financial planning entails and why it is important and relevant.

Educator Resources/Materials Needed:
- Talking About Money video
- Online financial calculators, local financial experts to teach basics of checking and savings accounts (On-site or in class)
- One Two Punch educator answer sheet
- You’ve Got the Power—of Compounding educator answer sheet

Related Activities/Student Worksheets:
- Coming to Terms With...Financial Planning Glossary
- One Two Punch
- You’ve Got the Power—of Compounding
- At the Speed of Life

Subject/Skill Focus: Critical thinking, math skills, communication skills

Lesson Script/Teaching Steps:
Before conducting the lesson, you may want to view the Talking About Money video with your students. (See the Video Guide, page 8.) You may also want to briefly review the relevant resources, activities, and activity sheets. Reinforce that various types of insurance provide protection for your assets and income—if you can’t work, if you are injured or require medical care, or when you die.
Where do those assets come from? Where do you get the money you are protecting? Through income as well as savings and investments. This is called asset accumulation.

**Earning Money, Saving Money**

What are some savings/investment instruments? Ask students for ways they would accumulate money/assets, such as:

- savings accounts;
- investments;
- home ownership/property;
- college savings such as 529 plans; and
- retirement plans such as IRAs and 401(k)s.

Can students define or explain any of these methods? Students who work may have various forms of savings and investment accounts.

Use the *Coming to Terms With...Financial Planning Glossary* sheet to further discuss the various types of protection and accumulation products.

Talk about the fact that savings and investment needs change with life stages, just as insurance needs do. If possible, bring in experts to supplement your discussion or have students find articles on the Internet and in magazines that talk about how and why to save.

You might want to review one or more of the websites from the Helpful Links section of the site for information on saving and investing.

**Research Project**

Assign student teams one financial instrument listed on the *Coming to Terms With...Financial Planning Glossary* resource sheet to research and report on. They should be able to explain what it is, how it works, and how it fits into their financial pyramid. Ask them to bring in examples of that financial product (a check, information on savings rates, ads, flyers from banks, stock charts, a mutual fund prospectus or brochure, etc.) to use in a brief presentation. Suggest that they talk with a local banker or stockbroker as part of their research.

Materials students bring in can be set up as a display in the classroom, and turned into a mini traveling exhibit that your class can take to other classrooms to explain financial planning and the importance of financial literacy. You can also create a display for parent-teacher nights to highlight what your students have been learning.

**In-Class Activities**

Use the following activities to reinforce students’ understanding of all the facets of financial planning, how needs change with life stages, and how protection (e.g., insurance) and accumulation (e.g., savings, investments) products are necessary partners in financial health.

> **One Two Punch Activity:**

Distribute *One Two Punch* and complete as an all-class activity, discussing it as you go. Students will draw on what they have learned about insurance and savings and use math skills to better understand that different planning approaches result in different financial outcomes. We used the following online compound interest calculator, [http://lifehappyn/UCPHfd](http://lifehappyn/UCPHfd), and assumed an initial balance of $0 and monthly compounding. Note: There are a myriad of online compound interest calculators. Your students may get slightly different outcomes depending on whether a calculator assumes interest is paid at the beginning of the month versus the end of the month. This calculator assumes end-of-month interest.

> **You’ve Got the Power—of Compounding Activity:**

Compounding is a very important concept for students to learn. Knowing how savings can grow exponentially with compound interest (versus simple interest) and how the interest on debts can add up quickly will help them effectively manage their finances now, and later as they become more complex.

Distribute the *You’ve Got the Power—of Compounding* sheet and go through the challenges, making sure students are grasping the concepts and using math skills to understand how compounding works. The key here is that as interest is added to the principal, the principal amount grows, which means that interest is being paid on an increasingly larger amount. Therefore, the amount of interest grows, too.

**Compounding Project:**

Student groups can be assigned different methods for “growing” savings. Each group starts with $200. One hundred dollars goes into each of two “accounts” that they select, or that you assign. These might be checking with no interest, checking with interest, money market, savings, CD, stocks, bonds, mutual funds, or even “under the mattress.” For interest-bearing accounts, choose current offerings that are being advertised by a local bank or an online institution or brokerage firm. Students calculate and report on the status of their savings after specified amounts of time have passed: one year, five years, 20 years. A corollary activity would be to select one method and regularly add to the account: $5 per week.
Ask an Expert
Pair this activity with a “financial field trip” to a bank or other local financial institution. Or invite a banking professional or one of your consumer education/economics teachers to the classroom for a presentation/discussion of basic savings instruments and strategies. Visit a financial institution for a lesson/demo on opening a checking/savings/money market account. Or check for a bank in your area that will send an expert to class for an educational session.

Take it On Home
Students have had an opportunity to apply what they’ve learned to realistic scenarios using the activities. Distribute blank copies of the *At the Speed of Life* sheet. Ask students to work with their parents to assess their family insurance products and financial products (to the extent that the parents are comfortable with that) using the activity sheet.

Reinforce the concept that different families have different needs and choose different solutions.
GUIDE: Financial Planning

Educator Answer Sheet: One Two Punch

Jimmy Hernandez and Bill Brown have been neighbors for a long time. They even work at the same company and make approximately the same salary. They both believe it is important to build financial security, but they have different approaches to planning.

Jimmy's Financial Plan—All Investments. Jimmy thinks the best idea is to put as much money as possible into savings and investments. He decided not to buy any life insurance.

Instead, he puts $200 a month into an investment fund that earns an average annual return rate of 8%. Jimmy believes that if he dies during the next 20 years, his savings will grow fast enough to provide his family with a sufficient financial safety net.

Bill's Financial Plan—Investments Plus Insurance. Bill is investing in the same fund as Jimmy and also is earning average interest of 8% annually. However, Bill feels strongly that he needs life insurance in his financial plan because his current savings wouldn't be enough for his family to live on if something happened to him in the near future.

Like Jimmy, Bill puts $200 per month toward his financial plan. The difference is he purchased a 20-year, $200,000 term life insurance policy with a monthly premium of $20. The remaining $180 goes into his investment account each month.

Whose plan will provide better protection in the long run?

Compare Savings. Look at Jimmy’s and Bill’s savings (Columns A and B). Using a compound interest calculator, calculate how much each man will save in five, 10, 15, and 20 years if they keep putting the same amount away each month. Assume an 8% annual return. The first row has been filled in for you using the calculations from the following online compound interest calculator, http://lifehap.pn/UCPHfd, and assuming an initial balance of $0.

Complete the calculations for Columns A and B. Who saved more in 20 years? Jimmy.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$2,490</td>
<td>$2,241</td>
<td>$202,241</td>
</tr>
<tr>
<td>Year 5</td>
<td>$14,695</td>
<td>$13,226</td>
<td>$213,226</td>
</tr>
<tr>
<td>Year 10</td>
<td>$36,589</td>
<td>$32,930</td>
<td>$232,930</td>
</tr>
<tr>
<td>Year 15</td>
<td>$69,208</td>
<td>$62,287</td>
<td>$262,287</td>
</tr>
<tr>
<td>Year 20</td>
<td>$117,804</td>
<td>$106,024</td>
<td>$306,024</td>
</tr>
</tbody>
</table>

Now complete the calculations for Column C. Whose family will have more money if the wage earner dies at year five, 10, 15, or 20? Bill.

Graph It. Both men’s savings will grow significantly because of compound interest. They will earn 8% on the money they deposit each month and on the interest they have previously earned. Have students create a graph that plots the growth of their savings.

Make It Real. Jimmy’s and Bill’s plans are based on an average 8% rate of return on investments. But the long-term returns on stocks, bonds, and cash accounts are very different. Have students take a look at annual returns on stocks and different types of government bonds going back to 1928 at this link: http://lifehap.pn/XVVl2L.

What happens if Jimmy and Bill put their monthly savings into different types of investment vehicles or a combination of vehicles? Have students create their own chart and use the link to the online compound interest calculator on the previous page to calculate what Jimmy and Bill will have in five, 10, 15, and 20 years under different return scenarios.
Educator Answer Sheet:
You’ve Got the Power—of Compounding

The power of compounding is this: Each day you earn interest on the interest as well as the principal (the initial money you put in). The interest you pay is added to the principal, so your principal grows. That means that interest will be paid on an increasing amount of principal.

Compound vs. Simple Interest:
Try this: You put $10 into savings and earn 5% that is compounded monthly. How has your money grown in two years? In three years?

Two years: $11.05  Three years: $11.61

If you had simple interest, you would only earn money on the original $10. So after two years, your total would be $11.00. And after three years your total would be $11.50.

While the benefits of compound interest are not as obvious in the two-year example, students will begin to see how compounding makes a difference in the third year.

Time is on your side: Saving/investing money beginning at age 18, 19, or 20 will earn you thousands more dollars by age 40 or 50 than if you get started later in life. However, it is never too late to start putting money into savings. Remember, too, that continuous savings counts. Don’t wait until you have a big chunk of change. Saving $5 or $10 a week every week will add up.

Find calculators to calculate interest on all types of savings and a variety of loans at www.choosetosave.org.

Challenge #1:
Three friends start with $100 at age 18:
1. James puts his money in a drawer at home, and forgets about it. He discovers it on his 26th birthday. He quickly invests it in a mutual fund account that earns these rates over the next four years: 11%, 8%, -2%, and 15%. $135.10
2. Joelle puts it into a savings account that earns 3% per year. $142.58
3. Andre immediately spends $50 on a new pair of sneakers. He puts the rest in a fixed money market account that earns 5% per year. $89.79

Now the friends are 30. Who has more money? Who had the best return on investment? Why? Joelle will have more money because she put it into an account earlier than the others, and she invested the entire amount. However, James has the best return on investment with an average 8% return per year, even though he was only investing for four years.

Challenge #2:
On June 1 (or the first of any 30-day month), you are offered one penny that will double every day. Alternatively, you can receive $10,000 a day for 30 days. You choose _________. Why?

This is one of those amazing but true phenomena. It is a geometric series (rather than an arithmetic series). The amount doubles each day, growing: $1 + 2 + 4 + 8 + 16...and so on for 30 days.

This is a common accounting/math trick question. Students are asked if they want a set amount, such as $10,000, every day for a month, or a penny doubled every day. Most pick what seems like the larger amount, and lose a lot of money.

<table>
<thead>
<tr>
<th>Time frame</th>
<th>$10,000 per day</th>
<th>1 cent doubled each day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week (7 days)</td>
<td>$70,000</td>
<td>$1.28</td>
</tr>
<tr>
<td>2nd week (14 days)</td>
<td>$140,000</td>
<td>$164</td>
</tr>
<tr>
<td>3rd week (21 days)</td>
<td>$210,000</td>
<td>$21,000</td>
</tr>
<tr>
<td>4th week (28 days)</td>
<td>$280,000</td>
<td>$2.7 million</td>
</tr>
<tr>
<td>29th Day</td>
<td>$290,000</td>
<td>$5.3 million</td>
</tr>
<tr>
<td>30th Day</td>
<td>$300,000</td>
<td>$10.5 million</td>
</tr>
</tbody>
</table>
Lesson 2:
The Financial Pyramid

Estimated Time: 45 minutes

Type: In-class activity, analysis, group discussion

Description: Students explore personal finance and the concept of the financial pyramid, which consists of developing a firm foundation and accumulating wealth.

Learning Standards:
Financial Literacy: Risk Management and Insurance
Overall Competency: Use appropriate and cost-effective risk management strategies.
Standard 1: Identify common types of risks and basic risk management methods
Standard 3: Explain the purpose and importance of health, disability, and life insurance protection.

Financial Literacy: Planning and Money Management
Overall Competency: Organize personal finances and use a budget to manage cash flow.
Standard 1: Develop a plan for spending and saving.
Standard 2: Develop a system for keeping and using financial records.
Standard 6: Develop a personal financial plan.

Financial Literacy: Financial Responsibility and Decision Making
Overall Competency: Apply reliable information and systematic decision making to personal financial decisions.
Standard 2: Find and evaluate financial information from a variety of sources.
Standard 4: Make financial decisions by systematically considering alternatives and consequences.

Life Skills: Thinking and Reasoning
Standard 6: Applies decision-making techniques.
Benchmark 6. Analyzes the impact of decisions on self and others and takes responsibility for consequences and outcomes of decisions.

Common Core State Standards for English Language Arts
Reading: Informational Text: CCSS.ELA-Literacy.RI.9-12.1–Key Ideas and Details: Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
Reading: Informational Text: CCSS.ELA-Literacy.RI.11-12.7–Integration of Knowledge and Ideas: Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

Speaking and Listening: CCSS.ELA-Literacy.SL.9-12.1–Comprehension and Collaboration: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.

Learning Objective: Students learn basic principles of financial planning.

Educator Resources/Materials Needed:
• Copies of the Financial Planning Glossary for reference

Related Activities/Student Worksheets:
• The Financial Pyramid

Subject/Skill Focus: Critical thinking, communication skills, math skills, visualization skills

Lesson Script/Teaching Steps:
Before starting this lesson, discuss the importance of financial planning, or of protecting your income in the event that you can’t work.

Students might be familiar with the concept of budgeting and the important role it plays in financial responsibility. In this activity, they will explore the concept of financial planning, which includes budgeting for everyday expenses, protecting income and assets, and growing wealth.

In addition, they will be introduced to the financial pyramid, which represents an approach to financial planning.

Discuss with students the following questions:
• What are some common expenses that lots of people have? (Answers may include rent or mortgage, car, credit card, loan payments, cell phone, electric, gas, or medical bills, etc.)
• If you were 25 years old, working, and receiving a paycheck, what would you do with the money you earned?
• Would you have a plan for what you would do with your income?
• Would you save or invest any of your paycheck? If so, why?
• How do people accumulate money and assets? (Answers may include: steady paycheck, budgeting, savings accounts, investments, retirement plans, etc.)
The Financial Pyramid Activity:
Hand out the student activity *The Financial Pyramid*. You may want to review the content with students and then instruct them to work independently for five minutes to complete Part A. In this section, students will match financial tools and assets with one of the parts of the financial pyramid. Students may need the financial planning glossary page as a reference.

Once students are done, lead a discussion about each financial element’s place on the pyramid. Ask for volunteers to share why they categorized each element the way they did. Point out that stocks, bonds, mutual funds, retirement accounts, and house/condominium ownership are all ways to accumulate wealth because they earn interest or dividends, or in the case of real estate, can appreciate in value. These assets have the potential to grow over time and provide a source of income later in life. Review the differences among these various assets using the glossary.

The “Protection & Security” section of the pyramid is designed to protect these assets and an individual’s financial well-being, and includes savings and insurance, such as health, life, disability, homeowners, and car insurance.

After the discussion, have students answer the questions in Part B of *The Financial Pyramid* worksheet.

**Educator Answers:**

**Part A:**
Protection & Security: checking account, insurance, bank savings account

Accumulation: stocks, bonds, mutual funds, 401(k)s, IRAs, certificates of deposit (CDs), house/condominium ownership

**Part B:**

1. Answers will vary but should point out that the purpose of the “Accumulation” elements is to store and grow money, while the purpose of the elements in the “Protection & Security” category is to provide a safeguard against loss and uncertainty, including things like disability and health insurance which ensure income if a person is unable to work. Remind students that the items in the “Accumulation” portion of the pyramid are not all the same—some are riskier than others, meaning that while investors stand the chance of earning a greater return on their investment, they also run the risk of larger losses.

2. Answers should include the importance of budgeting income, paying expenses in a timely fashion, managing credit card use, guarding against excessive debt, etc.

3. For this answer, students should express ways people can reduce their expenses and financial obligations, which could include shopping around for lower credit card interest rates or less expensive cell phone plans; carpooling; having roommates; going out less often; buying a used car instead of a new car, etc.

4. Over time, people often shift from growing wealth to protecting it. For example, a 30-year-old might invest most of the $20,000 in riskier assets like stocks and mutual funds that have a high return on investment. A person in her sixties who is closer to retirement might invest in less risky or more stable assets. Both people might invest in insurance to help protect their income and assets. Yet as people get older, they might shift higher-risk investments in the “Accumulation” portion of the pyramid to less risky and more accessible funds in the “Protection & Security” section of the pyramid.