

UNIT VI - LEADERSHIP AND PERSONAL DEVELOPMENT

Lesson 2: Importance of Financial Records

Competency/Objective: Explain the importance of keeping financial records.

Study Questions:

1. **Why should individuals save for the future?**
2. **How is interest calculated?**
3. **What is the difference between an expense and a receipt?**
4. **Why is it important to keep personal financial records?**

References

1. *Exploring Agriculture in America* (Student Reference). University of Missouri-Columbia: Instructional Materials Laboratory, 2000, Unit VI.
2. Board games such as "We Mean Business! An Adventure in Entrepreneurship" or "Rich Farmer - Poor Farmer." Order from NASCO, 1-800-558-9595.
3. Transparency Masters
TM 2.1 A Million Dollars or a Penny?
TM 2.2 Two Ways to Become a Millionaire
TM 2.3 Rule of 72
TM 2.4 Calculating Simple Interest
4. Handout
HO 2.1 Two Ways to Become a Millionaire
5. Activity Sheets
AS 2.1 Time Value of Money and Rule of 72
AS 2.2 Calculating Simple Interest
AS 2.3 Tips on Saving Money

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TEACHING PROCEDURES

A. **Review**

In the previous lesson, we learned about the important factors in developing leadership skills. One of the important concepts was how setting goals is an important factor in leadership development. In this lesson, the concept of goal setting will be applied to financial management.

B. **Motivation**

1. Explain the following scenario to students: You have just won the lottery and will receive \$100,000 today. What will you do with the money? After giving students time to develop their plan, have them share it with another student. Have them identify similarities and differences in what they would do with the money by categories. Discuss categories with the class and list on the white board. Is "put in savings" a category?
2. Ask students if they would rather have a penny that doubles in amount each day for a month or a million dollars in one lump sum. Use TM 2.1 to illustrate what will happen.

C. **Assignment**

D. **Supervised Study**

E. **Discussion**

Q1. **Why should individuals save for the future?**

A1.

- a) **To have enough money for key times in life**
 - 1) **Living expenses when moving away from home can be considerable.**
 - 2) **College expenses may range from \$2,000 to \$3,000 or even as high as \$15,000-\$20,000, depending on various factors.**
 - 3) **Major purchases - Making large purchases such as a car, house, land, machinery, or business requires a significant amount of money.**
 - 4) **Retirement - When an individual no longer has a salaried job, savings and other retirement accounts are needed to provide the needed funds.**
- b) **To let the effect of interest rates and time work for them**

Show TM 2.1 (or review if used in the Motivation). Show TM 2.2 to illustrate savings and interest with two different scenarios and then distribute HO 2.1, which provides the breakdown of payments for each scenario. Briefly discuss what a Tax-Sheltered Annuity provides an individual. Without getting too complex, help students to understand the similarities and differences between a savings account and a TSA. A TSA can be thought of as a savings account that usually earns a higher rate of return. Unlike a savings account, the money contributed to a TSA stays there until needed at retirement. Then show TM 2.3, which illustrates how to calculate rate of return, and have students complete AS 2.1 for an exercise in how to figure interest rates and savings accrued.

Q2. **How is interest calculated?**

A2. Simple interest, interest charged for only the time the money is used, is equal to (principal) x (rate) x (time).

Show TM 2.4, which displays how to calculate simple interest. Have students complete AS 2.2 to solve problems involving simple interest.

Q3. What is the difference between an expense and a receipt?

A3.

- a) **Expense - An expense is a financial outlay or cost.**
- b) **Receipt - A receipt is revenue or income.**

Use board games such as "We Mean Business! An Adventure in Entrepreneurship" or "Rich Farmer - Poor Farmer" to help students better understand financial concepts.

Q4. Why is it important to keep personal financial records?

A4.

- a) **It enables an individual to monitor income and spending.**
- b) **It can help an individual accomplish his or her goals.**

Conduct AS 2.3 as a concluding activity on how to budget and save money. Have students share their lists and summarize the information.

F. *Other Activities*

1. Invite a banker or financial planner to class to present information on financial management.
2. Utilize web sites such as <<http://www.bankrate.com/brm/popcalc2.asp>> that have amortization programs and loan calculators.

G. *Conclusion*

A financial plan can help an individual manage his or her money so that personal and financial goals can be reached. It is important to begin this process early so that time and interest work for you. Monitoring the plan, especially in regard to saving and spending will help individuals reach their goals.

H. *Answers to Activity Sheets*

AS 2.1 Time Value of Money and Rule of 72

1. 18 years
2. 13 years
3. 7 years
4. 40,000
5. a. \$1,600
b. \$16,000

Breakdown:

	a.	b.
Age	Savings Account Value	
14	\$100	\$1000
28	\$200	\$2000
42	\$400	\$4000
56	\$800	\$8000
70	\$1,600	\$16,000

AS 2.2 Two Ways to Become a Millionaire

1. $SI = (2000)(.08)(1) = \$160$
2. $SI = (25000)(.07)(2) = \$3500$
3. $SI = (15000) (.08) (3/12) = \225
4. $SI = (300) (.075) (9/12) = \16.88
5. $SI = (10)(.14)(20/365) = \$.08$

AS 2.3 Tips on Saving Money

Answers will vary.

I. **Answers to Evaluation**

1. c
2. b
3. a
4. b
5. b
6. a
7. d
8. a
9. The ability to motivate oneself and others to achieve goals
10. Answer should include three of the following: motivating yourself and others, good character, communicating effectively with others, working well in teams, confident in abilities, goal oriented and motivated.
11. Answer should include one of the following: getting a job, strong personal image, building better relationships with people.
12. Simple interest = principal x rate x time
13. Savings accounts, certificates of deposits, retirement accounts.
14. Answers will vary.

A Million Dollars or a Penny?

Would you take \$1,000,000?

or

1¢ and each day double this amount for a month? (1¢, 2¢, 4¢, 8¢, 16¢, etc.)

At the end of the month, the original penny will be worth \$10,737,418.

Let time and interest work for you!

Two Ways to Become a Millionaire

At age 21:

You open a TSA by investing \$2,000 a year for 6 years and then stop.

or

Spend \$2,000 on yourself for 6 years and then open a TSA by investing \$2,000 a year for 36 years until you retire at age 62.

At age 62:

Using an interest rate of 12%, both ways will result in approximately the same amount of money . . . a million dollars!

Which way will you select?

Start saving early to become a millionaire!
Let time and interest work for you.

Rule of 72

$72 \div \text{Rate of Return} =$
Number of years for your money to double

Example - You deposit \$100 in a savings account that earns 6% interest. How many years will it take for your money to double?

$$72 \div 6 = 12 \text{ years}$$

In 12 years from the day you deposited your money, you will have \$200.

How much money will you have in 24 years?

\$400

Calculating Simple Interest

Simple Interest = (Principal) (Rate) (Time)

Terms of the loan:

\$3,000 borrowed

12% interest rate

1 year to pay

Simple Interest = (3000) (.12) (1) = \$360

Terms of the loan:

\$2,000 borrowed

9% interest rate

4 months to pay

Simple Interest = (2000) (.09) (4/12) = \$60

Lesson 2: Importance of Financial Records

Two Ways to Become a Millionaire

Individual A opened a Tax sheltered Annuity (TSA) at 12% interest and invested \$2,000 a year for 6 years and then stopped. Individual B spent \$2,000 a year on himself/herself for 6 years and then opened a TSA at 12% interest, investing \$2,000 a year for the next 38 years. Look at age 62. Individual A, who only deposited \$12,000, has accumulated nearly as much as Individual B, who deposited \$74,000. Start early - let time work for you!

Age	Individual A		Individual B	
	Payment	Accumulation End of Year	Payment	Accumulation End of Year
21	\$2,000	\$2,240	0	0
22	2,000	4,479	0	0
23	2,000	7,559	0	0
24	2,000	10,706	0	0
25	2,000	14,230	0	0
26	2,000	18,178	0	0
27	0	20,359	\$2,000	\$2,240
28	0	22,803	2,000	4,479
29	0	25,539	2,000	7,559
30	0	28,603	2,000	10,706
31	0	32,036	2,000	14,230
32	0	35,880	2,000	18,178
33	0	40,186	2,000	22,559
34	0	45,008	2,000	27,551
35	0	50,409	2,000	33,097
36	0	56,458	2,000	39,309
37	0	63,233	2,000	46,266
38	0	70,821	2,000	54,058
39	0	79,320	2,000	62,785
40	0	88,838	2,000	72,559
41	0	99,499	2,000	83,507
42	0	111,438	2,000	95,767
43	0	124,811	2,000	109,499
44	0	139,788	2,000	124,879
45	0	156,563	2,000	142,105
46	0	175,351	2,000	161,397
47	0	196,393	2,000	183,005
48	0	219,960	2,000	207,206
49	0	246,355	2,000	234,310
50	0	275,917	2,000	264,668
51	0	309,028	2,000	298,668
52	0	346,111	2,000	336,748
53	0	387,644	2,000	379,398
54	0	434,161	2,000	427,166
55	0	486,261	2,000	480,665
56	0	544,612	2,000	540,585
57	0	609,966	2,000	607,695
58	0	683,162	2,000	682,859
59	0	765,141	2,000	767,042
60	0	856,958	2,000	861,327
61	0	959,793	2,000	966,926
62	0	1,074,968	2,000	1,082,959

Lesson 2: Importance of Financial Records

Name _____

Time Value of Money and Rule of 72**Objective:** Students will figure interest rates and how savings can be accrued.**Directions:** Complete the following problems. Show your work.

1. How many years are required for \$50 to double if it is earning 4% interest?
_____ years

2. How many years will it take for \$1,000 to double if it is earning 5.5% interest?
_____ years

3. Your TSA has been earning 10.3% interest. You have \$2,000 in the account. Without adding any more money to the TSA and assuming you can earn 10.3%, your \$2,000 will be worth \$4,000 in _____ years.

4. You have \$10,000 in your savings account earning 4.8% interest. How much money will you have in your savings account in 30 years? \$_____

5. Julie Carver, a 14-year-old, opens a saving account that earns 5.14% interest.
 - a. If she puts \$100 in the account and there is no change in the interest, it will be worth \$_____ at age 70.
 - b. What would the savings account value be at age 70 if Julie started with \$1,000?
\$_____

Lesson 2: Importance of Financial Records

Name_____

Calculating Simple Interest**Objective:** Students will compute simple interest.**Directions:** Complete the following problems. Show your work.

1. I.M. Rich borrows \$2,000 for 1 year at 8% interest. \$_____ is the simple interest that has accumulated at the end of the year.

2. Your horticultural business Plants and More must borrow \$25,000 for a new greenhouse. Banker Brad loans you the money for 2 years at 7% interest. How much simple interest will be due at the end of the 2 years? \$_____

3. BBBB (Brad's Best Buy Bank) loans Dr. Doug Holmes \$15,000 for medicine and other supplies. Dr. Holmes must repay the loan in 3 months with 6% interest charges. \$_____ in simple interest will be due at the end of 3 months.

4. Mickey Alottamoney borrows \$300 to buy a new lawnmower for his business Mickey's Mowing. He must repay the loan in 9 months with 7.5% interest charged. What is the simple interest that will be due at the end of 9 months? \$_____

5. You loan your classmate \$10 for 20 days and charge 14% interest. How much simple interest will be due at the end of the 20 days? \$_____

Tips on Saving Money

Objective: Students will identify ways to budget and save money.

Procedure:

1. Access web sites to find information about saving money. Following are several web sites:

Savvy Student <http://www.savvystudent.com>
Personal Budgeting <http://www.personalbudgeting.com>

2. From these or other sources, identify at least two ways you can save money and two ways your family might be able to save money.

You

1.

2.

Your family

1.

2.

UNIT EVALUATION

Circle the letter that corresponds to the best answer.

1. Select the correct bonus to possessing leadership skills.
 - a. Winning the lottery
 - b. Front row parking
 - c. Respect, confidence, and success
 - d. Growth of investments

2. Select the three types of goals.
 - a. Small, medium, large
 - b. Short-term, intermediate, long-term
 - c. Short-range, mid-range, long-range
 - d. Lower, mid-level, upper

3. Select the appropriate reason for setting goals as a leader.
 - a. Goals focus and motivate people to complete tasks.
 - b. Goals lead to increased salaries.
 - c. Goals are required for job interviews.
 - d. Goals are always achieved in 1 to 2 days.

4. Choose the premier leadership organization for youth in agricultural education.
 - a. FAF
 - b. National FFA
 - c. FHA
 - d. FMHA

5. I.M. Rich put \$2,000 into a certificate of deposit at 9% interest. It will be worth \$4,000 in _____ years.
 - a. 5
 - b. 8
 - c. 12
 - d. 18

6. Plants And More borrows \$7,000 for new greenhouse benches. The loan will be paid back in 1 year with 6.5% interest charges. \$_____ simple interest will be due at the end of the year.
 - a. 455
 - b. 550
 - c. 910
 - d. 955

7. Principal is defined as _____.
- a. PRT
 - b. The interest rate
 - c. The part of the year the money is used
 - d. The amount of money borrowed
8. Operating costs would be considered a/an _____.
- a. Expense
 - b. Receipt
 - c. Income
 - d. Revenue

Complete the following short answer questions.

9. Define personal leadership.
10. List three important leadership skills.
- a.
 - b.
 - c.
11. Describe one way in which communication skills are important as a leader.
12. What is the formula for determining simple interest?
13. List three ways that money can be saved to provide financial security for retirement.
- a.
 - b.
 - c.
14. Identify a goal you have that involves financial planning. Explain how your financial plan will allow you to reach this goal.