Unit 7
Spending

Lesson 7B:
Big Spenders

Rule 7: Spend wisely.

Because income is limited, people must make decisions about which goods and services to buy to maximize the satisfaction (happiness) they get from their income. These lessons look at things to consider when making choices about spending (What does it mean to get a "good deal"?) and show that "spending on saving" may be one of the best ways to spend more than may seem possible with a given income.

Lesson Description

Students compare the spending behavior of two families to see how a higher saving rate can lead to not only greater savings but greater spending.

Standards and Benchmarks (see page 163)

Grade Level

9-12

Concept

Saving rate

Compelling Question

How does saving now affect future spending?

Objectives

Students will be able to calculate how different saving rates affect a savings balance and the ability to spend in the future.

Materials

- Visual 7B.1: The Bigs versus the Littles
- Handout 7B.1: Saving Rate, one copy for each student

Time Required

30 minutes

Procedure

1. Explain that preceding lessons discussed two things that help savings grow: the annual interest rate and the length of time the money compounds. There is another important factor: your saving rate. Your **saving rate** is the percentage of your income that you save. For example, if you make $500 per week and save $50, your savings rate is $50/$500, or 10 percent.

2. Divide the class in half and then form small groups of three or four students within each half.

3. Distribute a copy of *Handout 7B.1: Saving Rate* to each student.

4. Explain that each group represents a family. Designate one-half of the small groups as Bigs families and the other half as Littles families. Instruct the students to record the following information for their families on Handout 7B.1:
   - The Bigs families are "big spenders" and have a saving rate of 5 percent.
   - The Littles families spend a smaller portion of their income and have a saving rate of 20 percent.

5. Explain that each family is to keep track of its income, spending, saving, and savings balance over several years as follows:
   - Each family starts with an income of $40,000, and the income will remain $40,000 each year.
   - Each family will earn 8 percent interest per year on its savings.
   - All interest earned each year will be added to income the next year.
   - For example, in Year 1, the Bigs have an income of $40,000, save $2,000 (5 percent of $40,000), spend $38,000 (their remaining income), and have a savings balance of $2,000 (the amount saved). And, the Bigs earned $160 in interest in Year 1 ($2,000 × 0.08 = $160).

- In Year 1, the Littles have an income of $40,000, save $8,000 (20 percent of $40,000), spend $32,000 (their remaining income), and have a savings balance of $8,000 (the amount saved). And, the Littles earned $640 in interest in Year 1 ($8,000 × 0.08 = $640).
- In Year 2, the Bigs will have an income of $40,160 ($40,000 plus the interest on their savings balance, $2,000 × 0.08 = $160).
- In Year 2, the Littles will have an income of $40,640 ($40,000 plus the interest on their savings balance, $8,000 × 0.08 = $640).

6. Instruct the groups to complete Handout 7B.1 by determining the income, saving, spending, and saving balance for Years 2 through 5. Remind the students that the interest earned each year on their savings is added to their $40,000 income the next year. (The answers are on Visual 7B.1.) Allow time for the groups to work and then ask groups to report their Year 5 results.

7. Display *Visual 7B.1: The Bigs versus the Littles*. Explain the following:
   - After only 5 years, the Littles's spending is only $4,514 less than the Bigs's spending (it started $6,000 apart) and the Littles have saved over 4 times as much as the Bigs—$41,300 versus $10,080.
   - The chart also shows the impact of the families continuing the same pattern over 35 years.

8. Instruct the groups to reflect on the chart for 5 minutes and to write down one observation. Allow time for students to work and then invite groups to report what they have written. (*Answers will vary but may include the following: The Littles saved more by Year 9 than the Bigs saved by Year 35. The Littles spent more than the Bigs by Year 16 and more than $6,000 more by Year 27. By Year 35, the Littles's income is 1.5 times that of the Bigs's, their spending is 20 percent higher, and their savings balance is 5 times higher.*)

Closure

9. Explain that because of their higher saving rate, the Littles ended up with more savings than the Bigs. However, from Year 16 on, the Littles had more to spend—the Littles became the big spenders!

Assessment

10. Direct students to the "Assessment" section at the bottom of Handout 7B.1 and instruct them to answer the question. Allow time for students to work and then review their answers.

Handout 7B.1: Assessment—Answer Key

Based on the information in the chart, how does a high saving rate increase both your savings and spending over time? (*Those with a higher rate of saving will earn more interest. Because interest earned is income, interest contributes to both more money saved and more money available for spending over time.*)

Visual 7B.1: The Bigs versus the Littles

The Bigs					
Year	**Income**	**Savings**	**Spending**	**Savings balance**	**Interest**
1	$40,000	$2,000	$38,000	$2,000	$160
2	$40,160	$2,008	$38,152	$4,008	$321
3	$40,321	$2,016	$38,305	$6,024	$482
4	$40,482	$2,024	$38,458	$8,048	$644
5	$40,644	$2,032	$38,612	$10,080	$806
9	$41,298	$2,065	$39,233	$18,291	$1,463
16	$42,468	$2,123	$40,345	$32,978	$2,638
27	$44,375	$2,219	$42,156	$56,904	$4,552
35	$45,815	$2,291	$43,524	$74,976	$5,998

The Littles					
Year	**Income**	**Savings**	**Spending**	**Savings balance**	**Interest**
1	$40,000	$8,000	$32,000	$8,000	$640
2	$40,640	$8,128	$32,512	$16,128	$1,290
3	$41,290	$8,258	$33,032	$24,386	$1,951
4	$41,951	$8,390	$33,561	$32,776	$2,622
5	$42,622	$8,524	$34,098	$41,300	$3,304
9	$45,416	$9,083	$36,333	$76,784	$6,143
16	$50,753	$10,151	$40,602	$144,569	$11,566
27	$60,436	$12,087	$48,349	$267,538	$21,403
35	$68,619	$13,724	$54,895	$371,465	$29,717

Handout 7B.1: Saving Rate

Name:_____

Family: _____

Saving Rate: _____%

Year	Income plus interest	Saving	Spending	Savings balance	Interest earned
1	$40,000				
2					
3					
4					
5					

Assessment

Based on the information in the chart, how does a high saving rate increase both your savings and spending over time?

Standards and Benchmarks

National Standards for Financial Literacy

Standard 3: Saving. Saving is part of income that people choose to set aside for future uses. People save for different reasons during the course of their lives. People make different choices about how they save and how much they save. Time, interest rates, and inflation affect the value of saving.

- Benchmarks: Grade 8

  2. For the saver, an interest rate is the price a financial institution pays for using a saver's money and is normally expressed as an annual percentage of the amount saved.

- Benchmarks: Grade 12

  1. People choose between immediate spending and saving for future consumption. Some people have a tendency to be impatient, choosing immediate spending over saving for the future.