
Activity 2.3

Don't Let Your Fortune Go Up in Smoke

TEACHER'S GUIDE

VIDEO SUMMARY AND ACTIVITY OVERVIEW

Video 2, “Take Care of Yourself: Sound Health Decisions Make You Healthier and Wealthier,” stresses the important relationship between making good decisions about health and increasing one’s wealth over a lifetime. It often costs a lot to do things that harm your health. Smoking, using illegal drugs, eating too much and exercising too little all represent decisions that harm your physical health. The same decisions also harm your financial health.

In this activity, students study the choice to smoke as an example of a health decision that also has financial implications. They examine a table showing how money saved by not smoking can, over time, result in substantial savings. By responding to a series of questions, they learn that, over several years, small savings of any sort can result in substantial benefits. Starting to save early is the key.

CONCEPTS

Compounding
Costs and benefits
Trade-offs

MATERIALS

Duplicated **Student Activity 2.3**,
one for each student

PROCEDURE

1. Explain that Video 2 stresses the importance of making good decisions about your health. It often costs a lot to do things that harm your health. Smoking, using illegal drugs, eating too much and exercising too little all represent decisions that harm your physical health. The same decisions also harm your financial health.
2. Ask: How might not smoking contribute to your physical health? *On average, people who do not smoke live longer and are less likely to have cancer, heart disease and other serious illnesses.*
3. Ask: How might not smoking contribute to your financial health? *Accept a variety of answers.*
4. Distribute a copy of **Student Activity 2.3** to each student. Ask the students to read it and answer the **Questions for Discussion**. Discuss their answers.
 - A. What are some of the ill effects of smoking? *People who smoke die sooner than people who do not smoke. Smoking causes several diseases including many types of cancer, chronic bronchitis, heart disease and periodontitis.*
 - B. Study Figure 1. Imagine that when Jay was 18 years old he decided to delay smoking for one year. How much money did he save in the first year by not smoking? *\$1,952.75*
 - C. How much did Jay earn in interest at the end of one year by not smoking? *.07 x \$1,825 = \$127.75*
 - D. How much had Jay put into savings by age 65? *\$1,825 x 48 years = \$87,600*
 - E. How much did Jay have in total savings when he reached age 65? *\$689,848.17*
 - F. Why was the total amount of Jay’s savings so much higher than the amount

he contributed? *The savings he gained by not smoking earned interest. These earnings grew substantially over time. Jay earned more money when interest was paid on funds that had increased due to earlier interest payments.*

G. What conclusions can you draw from the information in Figure 1? *The earlier people begin saving, and the longer they save, the more money they earn. Even saving small amounts of money over time can result in substantial savings. Living healthy by not smoking can have a financial reward.*

ASSESSMENT

1. Jay was able to save a large sum of money by not smoking. What two key factors made this possible?
 - A. *Saving for a long time and allowing interest to compound*
 - B. Saving for a long time and making daily stock transactions
 - C. Using savings for emergencies and allowing interest to compound
 - D. Using savings to buy U.S. Savings bonds
2. Maureen saved \$2,500 per year from the day she began work until she reached age 67—a period of 45 years. She placed her savings into an account that earned 8 percent interest annually. How much money will she have in her account after saving for 45 years?
 - A. \$112,500
 - B. \$231,499
 - C. \$500,676
 - D. *more than \$1,000,000*
3. Saving a small amount of money and allowing it to grow over the long term means that
 - A. people who lack financial means cannot become wealthy.
 - B. *people of modest income can become wealthy.*
 - C. the rich get richer and the poor get poorer.
 - D. when it comes to saving, time is your greatest enemy.

Student Activity 2.3

Don't Let Your Fortune Go Up in Smoke

Video Summary

Video 2, “Take Care of Yourself: Sound Health Decisions Make You Healthier and Wealthier,” stresses the important relationship between making good decisions about health and increasing one’s wealth over a lifetime. It often costs a lot to do things that harm your health. Smoking, using illegal drugs, eating too much and exercising too little all represent decisions that harm your physical health. The same decisions also harm your financial health. Smoking is an example. The money saved by not smoking can, over time, yield substantial savings. That is because the money saved can grow and grow, thanks to compound interest. Over several years, small savings can grow, by compounding, into real wealth. Starting to save early is the key.

Caution: Smoking Is Bad for Your Financial Health

Not smoking certainly makes good health sense. The U.S Food and Drug Administration estimates that smoking kills 440,000 Americans every year. In 1964, a report by the U.S. Surgeon General declared that smoking is a definite cause of cancers of the lung and voice box, and of chronic bronchitis. Later reports declared that smoking also causes cancers of the bladder, esophagus, mouth and throat. Other illnesses such as cardiovascular diseases, kidney cancer and periodontitis have also been linked to smoking. On average, smoking reduces the lives of male smokers by 13.2 years and the lives of female smokers by 14.5 years.

Not smoking also makes good economic sense. The U.S Food and Drug Administration estimates that the economic toll of smoking exceeds \$157 billion each year in the United States: \$75 billion in direct medical costs and \$82 billion in lost productivity.

But it isn’t merely society in general that benefits when people don’t smoke. Not smoking also makes good financial sense for individuals. For an individual, money saved by not smoking can grow into real wealth. Here is an example. Jay is 18 years old. He is thinking about beginning to smoke. Assume that a pack of cigarettes costs \$5 and that Jay would smoke one pack of cigarettes a day. Then think about what would happen if Jay decided not to smoke and deposited the money he would have spent on cigarettes into an account that earns interest at a rate of 7 percent annually. Examine Figure 1. It provides a summary of the results of Jay’s decision—if he decides not to smoke.

Figure 1 shows clearly that even small amounts of money saved over time can add up to real wealth. Many individuals regard themselves as unlikely candidates for financial success, chiefly because they begin their first jobs with low starting salaries. But even people of modest means can build wealth over time if they follow certain simple strategies. One strategy is to start saving early so that the miracle of compound interest can work for you over time.

Figure 1: Jay's Savings from Not Smoking

Age	Beginning Balance	Non-Smoking Savings	Annual Return	Ending Balance
18	\$ 0.00	\$ 1,825.00	7.00%	\$ 1,952.75
19	1,952.75	1,825.00	7.00%	4,042.19
20	4,042.19	1,825.00	7.00%	6,277.90
21	6,277.90	1,825.00	7.00%	8,670.10
22	8,670.10	1,825.00	7.00%	11,229.76
23	11,229.76	1,825.00	7.00%	13,968.59
24	13,968.59	1,825.00	7.00%	16,899.14
25	16,899.14	1,825.00	7.00%	20,034.83
26	20,034.83	1,825.00	7.00%	23,390.02
27	23,390.02	1,825.00	7.00%	26,980.07
28	26,980.07	1,825.00	7.00%	30,821.42
29	30,821.42	1,825.00	7.00%	34,931.67
30	34,931.67	1,825.00	7.00%	39,329.64
31	39,329.64	1,825.00	7.00%	44,035.47
32	44,035.47	1,825.00	7.00%	49,070.70
33	49,070.70	1,825.00	7.00%	54,458.40
34	54,458.40	1,825.00	7.00%	60,223.23
35	60,223.23	1,825.00	7.00%	66,391.61
36	66,391.61	1,825.00	7.00%	72,991.77
37	72,991.77	1,825.00	7.00%	80,053.95
38	80,053.95	1,825.00	7.00%	87,610.47
39	87,610.47	1,825.00	7.00%	95,695.96
40	95,695.96	1,825.00	7.00%	104,347.42
41	104,347.42	1,825.00	7.00%	113,604.49
42	113,604.49	1,825.00	7.00%	123,509.56
43	123,509.56	1,825.00	7.00%	134,107.98
44	134,107.98	1,825.00	7.00%	145,448.29
45	145,448.29	1,825.00	7.00%	157,582.42
46	157,582.42	1,825.00	7.00%	170,565.94
47	170,565.94	1,825.00	7.00%	184,458.30
48	184,458.30	1,825.00	7.00%	199,323.13
49	199,323.13	1,825.00	7.00%	215,228.50
50	215,228.50	1,825.00	7.00%	232,247.25
51	232,247.25	1,825.00	7.00%	250,457.30
52	250,457.30	1,825.00	7.00%	269,942.06
53	269,942.06	1,825.00	7.00%	290,790.76
54	290,790.76	1,825.00	7.00%	313,098.86
55	313,098.86	1,825.00	7.00%	336,968.53
56	336,968.53	1,825.00	7.00%	362,509.08
57	362,509.08	1,825.00	7.00%	389,837.46
58	389,837.46	1,825.00	7.00%	419,078.84
59	419,078.84	1,825.00	7.00%	450,367.11
60	450,367.11	1,825.00	7.00%	483,845.55
61	483,845.55	1,825.00	7.00%	519,667.49
62	519,667.49	1,825.00	7.00%	557,996.97
63	557,996.97	1,825.00	7.00%	599,009.50
64	599,009.50	1,825.00	7.00%	642,892.92
65	642,892.92	1,825.00	7.00%	689,848.17

Questions for Discussion

- A. What are some of the ill effects of smoking?
- B. Study Figure 1. Imagine that when Jay was 18 years old he decided to delay smoking for one year. How much money did he save in the first year by not smoking?
- C. How much did Jay earn in interest at the end of one year by not smoking?
- D. How much had Jay put into savings by age 65?
- E. How much did Jay have in total savings when he reached age 65?
- F. Why was the total amount of Jay's savings so much higher than the amount he contributed?
- G. What conclusions can you draw from the information in Figure 1?