

Dollars and Sense II: Our Interest in Interest, Managing Savings, and Debt

Lesson 2

How Can I Maximize Savings While Spending?

Instructions for Teachers

Overview of Contents

Lesson 2 contains five computer hands-on simulations designed to let students investigate the relative importance of careful saving (to maximize the difference between income and spending) and compound interest. The first two simulations involve specific short-term challenges, designed to illustrate the primary importance of saving (relative to small amounts of interest); the last 3 simulations offer students an opportunity to set short-, mid-, and long-term saving GOALS to help illustrate and understand the explosive power of interest over time.

- Simulation 1 challenges students to reconstruct their own past spending habits and compare them to those of a “friend” who earns less but has more savings after 2 years.
- Simulation 2 builds on Simulation 1 by exploring what “you” and the “friend” would each have to do to raise their respective savings to \$5,000 in 24 (or, if necessary, 36) months.
- Simulations 3 through 5 offer different time frames (< 2 years expressed in weeks, < 5 years, in months, and > 50 years) for students to explore a personal savings GOAL. In the last two simulations, covering years, interest becomes a significant and even dominant source of savings.

In each simulation, students will see the results of different financial strategies plotted out over time in GRAPHS and TABLES.

MATERIALS

- Computer Simulation (available online at [http://www.clexchange.org/curriculum/dollarsandsense/Dollars and Sense II/ds2_lesson2.asp](http://www.clexchange.org/curriculum/dollarsandsense/Dollars%20and%20Sense%20II/ds2_lesson2.asp)).
- Three handouts (use as needed) to record plans and results.

Core Objectives for Lesson 2

Saving PLANS must realistically address the importance of **saving more than you spend**. Over time, compound interest grows savings, making it easier to maintain healthy personal finances.

Students observe how saving, spending, and compound interest combine as a system (moving \$ in and out of one's Savings) and then watch as that system operates over time.

- (1) **Saving and Compounding.** The primary financial lesson is this: Saving PLANS must realistically address the importance of saving more than you spend. The power and potential of compound interest are part of this financial lesson. In the short-term, these PLANS are likely to involve making trade-offs between immediate spending and/or earning more income (by sacrificing time); in the long-term, the key for the PLANS is to start saving as early as possible and for as long as possible.
- (2) **How Compounding Works.** Calculating compound interest over time on Savings that are also subject to regular earning (added) and spending (removed) is complicated and likely outside the mathematical skillset of many students using these lessons. The data shown in Graphs and Tables reinforce the importance of mathematical thinking. The addition of Systems Thinking concepts and frameworks, which illustrate what happens as \$\$ enter and exit one's account and as the residual savings is subject to a compounding interest process, reinforces students' deeper understanding of the general processes underlying the system.
- (3) **Balancing Income and Spending.** While recognizing that interest can, over time, become a major source of Income (and Savings), it is equally important that students continue to "Earn more than you spend." Doing so likely requires developing and using a budget, where sources of Income and Spending are clearly identified.
- (4) **Using Models to Test Options.** In all the simulations developed in this curricula, the open-ended and hands-on nature of the simulations are, first and

foremost, designed to let students explore and test their mental models and assumptions. In Lesson 2, the simulations are designed to encourage students to explore options and opportunities for evaluating different mental models, assumptions, or decisions. Ultimately, this leads to identifying and, subsequently, explaining to others a preference for one choice over other choices. At the core of the process is an important recognition that there is no single right answer for everyone. Instead, there are options, trade-offs, and multiple pathways through which students can define and achieve personal financial goals.

These simulations offer no single right answer, just opportunities for students to explore and test different strategies to discover what works best for them personally.

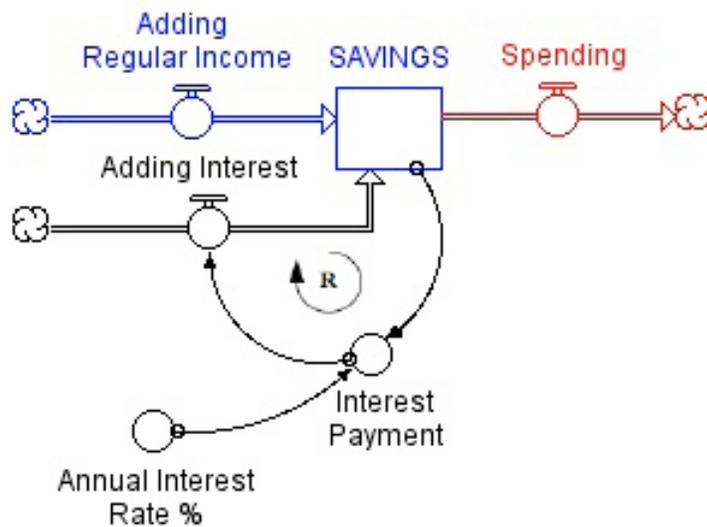
Deeper Understanding of How the “System” Works

The conceptual tools of systems thinking help to visualize the dynamic process that unfolds over time. In the actual models, illustrated in each of the simulations in Lesson 2, students can see the three actions that regularly repeat themselves:

- (1) SAVINGS: \$\$ are flowing into (and subsequently adding to) one’s SAVINGS Account);
- (2) Spending: Spending is taking some (or potentially all) of those \$\$ out of the SAVINGS account;
- (3) Earning Interest: What remains, added to existing Savings, earns interest.

Systems thinking tools help students see how compounding interest—or, in systems terms, reinforcing feedback—works.

In the short-term, the difference between the flows of \$\$ into “Adding Regular Income” and out of “Spending” will account for the majority of what accumulates in SAVINGS. However, where SAVINGS is significant and earning interest over a number of years, the “Interest Payment” can become a major, if not the dominant, source of SAVINGS growth. Hence, the truth of the expression, “Time is Money.”



Introductions To Each Simulation

Following are brief introductions to each of the three simulations, annotated versions of suggested student handouts, and possible follow-up questions and activities for extended learning opportunities.

SIMULATION 1: Can I Recreate Past Spending?

[http://www.clexchange.org/curriculum/dollarsandsense/Dollars and Sense II/ds2_lesson2.asp](http://www.clexchange.org/curriculum/dollarsandsense/Dollars%20and%20Sense%20II/ds2_lesson2.asp)

This exercise is designed to get students to recognize that money spent is money NOT saved. While this seems obvious, many of us often overlook how much we spend and where we spend it. The goal here is to challenge students to think more carefully about their regular spending habits, and the fact that relatively small purchases (on a daily or weekly or monthly basis) do add up over time. Students will also discover that relatively low rates of interest (1-2% annually) on small amounts of savings contribute far less to SAVINGS than managing one’s income by cutting spending.

SIMULATION 1 HANDOUT with ANSWERS and GUIDES FOR TEACHERS

Can I Recreate Past Spending?

1. Open the Simulation, read the Introduction, and summarize your task below:

It is important that students understand (and can explain) the learning objective for using the simulation: The task here is to identify how much my friend and I have spent, based on the difference between what we each earned and have left in our savings.

2. Calculate (with the simulation or paper and pencil) your and Ted's TOTAL INCOME earned over 24 months (Hours per Month x 24 months x \$6.75) =

	YOU: \$ 9,720.00	TED: \$ 5,832.00
Subtract Savings:	- \$601	- \$ 1,275
	YOU: \$ 9,119	TED: \$ 4,557

Divide this amount by 24 to determine monthly spending with NO Interest:

YOU: \$379.96	TED: \$ 189.88
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Use the simulation to (1) record monthly spending (type in the number), and (2) add the 1% interest. Run the simulation separately for you and for Ted, and adjust monthly spending to account for the added interest. Fill in below:

	YOU (\$ 601)	TED (\$ 1,275)
TOTAL INCOME:	\$ 9,720	\$ 5,852
MONTHLY SPENDING:	\$ 380	\$ 190
TOTAL INTEREST:	\$ 1.33	\$ 2.82

There are two take-home messages here.

First, total interest earned in either case is negligible (literally pennies a month). The point (perhaps unexpected?) is that (1) low rates of interest, (2) on small amounts of savings, (3) for relatively small periods of time DOESN'T generate a significant amount of interest.

Second, by spending roughly half as much as you did each month and working only a bit more than half as many hours as you did, Ted saved more than twice as much as you. This example illustrates the importance of knowing what you spend and, as a logical extension, whether the trade-off of monthly purchases versus a potentially larger purchase at a future time was a "wise" one.

3. How much would you have in your SAVINGS after 24 months if your monthly expenses were the same as what Ted spent?

$$\$9,720 \text{ (income)} - \$4,560 \text{ (spending)} + \$11.43 \text{ (interest)} = \$5,171.43$$

Questions 2 and 3 offer opportunities to explore “what ifs” that reinforce the core message: Having the SAVINGS you desire isn’t based just on how much you earn, but also how little you spend. It’s a system – with the message: “live below your means!” Note here that the simulation encourages asking “what ifs.”

4. What would Ted have in SAVINGS if his expenses were the same as yours?

Ted could NOT have spent \$380 each month – he earned only \$243

5. What is the MAXIMUM interest either of you could earn in this simulation? \$43.11

How? Monthly hours: 60 Monthly Spending:\$ 0 Interest Rate: 2%

Students know that working 60 hours generates \$9,720 in total income. With NO spending and 2% interest, total interest earned is \$43.11. Again, the message is that low interest rates paid on small amounts of Savings for short periods of time doesn’t generate much interest.

6. In evaluating the impact of the different factors (Income, Spending, Interest), which would you designate as most important. Why? Least important? Why?

The purpose of these exercise is to balance the earlier discussion on the “power” of compound interest with the reality of low interest rates on short term saving. In striving to achieve short term Savings GOALS, the key rests with managing Income and Spending.

SIMULATION 2: Can My Friend and I Reach a Savings GOAL?

[http://www.clexchange.org/curriculum/dollarsandsense/Dollars and Sense II/ds2_lesson2.asp](http://www.clexchange.org/curriculum/dollarsandsense/Dollars%20and%20Sense%20II/ds2_lesson2.asp)

As a follow-up to Simulation 1, this exercise seeks to extend students’ understanding of trade-offs in achieving short-term goals. When they recognize the need to save more money in the coming 24 months than either “you” or your “friend” have done in the previous two years, students look at their options for increasing regular saving: they may reduce spending (Ouch!), increase their workload (Ouch!), or pursue some combination of the two. The students are encouraged to think about where

and how compound interest can play a role in growing SAVINGS. Because of the short-term nature of their GOAL, earning interest will not contribute as much to SAVINGS as will the better management of income and spending.

SIMULATION 2 HANDOUT with ANSWERS and GUIDES FOR TEACHERS

Can We Reach Our Savings GOALS?

1. Open the Simulation, read the Introduction, and summarize your task below:

It is important that students understand (and can explain) the learning objective for using the simulation: The task here is to identify how my friend and I can significantly boost our respective savings to \$5,000.

2. To solve mathematically, use the equation below—OR use the simulation.

Equation Solving for Regular Savings with Compound Interest for Set Period of Time

$$B = A(1 + i)^n + \frac{(I - S)}{i} [(1 + i)^n - 1]$$

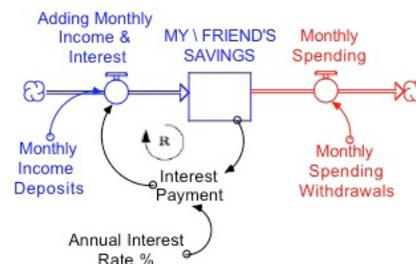
where
 B = final Savings Amount
 A = initial Savings
 I = Regular Income
 S = Regular Spending
 i = interest rate (annual/# times making deposits each yr)
 n = length of time making deposits & earning interest

The mathematics involved in solving this problem is likely to be well beyond the means of many students for whom the challenge of setting a Savings GOAL is a meaningful one. Hence, the simulation offers an alternative for visualizing and interpreting what is happening to one's Savings Account over time.

The visual representation appears in the simulation (behind the "What's Happening" button next to the TABULAR OUTPUT). Shown here, it offers a "systems" perspective of change over time. A changing SAVINGS account reflects money flowing in (income) minus money flowing out, with the remainder earning interest (with amounts of interest growing together with the growing Savings).

Picture the 3 things that are happening each month: The TOTAL accumulation of MY \ FRIENDS SAVINGS (the box or STOCK) is shaped monthly by the following:

- (1) New Income Deposits that FLOW IN; minus the
- (2) Spending Withdrawals that FLOW OUT;
- (3) Then, monthly interest is ADDED based on the total amount remaining in SAVINGS multiplied by the Annual Interest Rate (divided by 12 to equal monthly rate).



3. Consider using the simulation to explore multiple options (“What if...”) to achieve your or Ted’s GOAL. Start by defining each of the following variables below:

Hours you (or Ted) will work each month: _____

Average Monthly Spending: PRESENT: \$_____ PROPOSED: \$_____

Annual Savings Interest Rate (be realistic): _____%

Total # Months Plan to Save (24-36): _____

Formulating a starting plan requires students to make these decisions. In light of the inadequate size of both “your” and “Ted’s” current savings, it is clear there will need to be trade-offs. The trade-offs are reflected in decisions to increase work hours, reduce spending, or some combination of the two. How and what one values most (non-work time or purchases) ultimately are personal choices. There is NO single right answer here: rather, there are options based on personal preferences.

Use the simulation to determine if your plan “works”; then continue to explore options until you have THREE successful PLANS. Define each below.

For “you” (with \$601 current Savings, working 60 hours a month and spending \$380, here are some options:

	Plan 1	Plan 2	Plan 3
# Work Hours/Month:	60	80	60
Avg Monthly Spending:	\$221	\$356	\$230
Annual Interest Rate:	0	0	4%
# Months to Save:	24	24	24

These are only a few illustrations. Saving for 36 months (working 60 hours a month) and earning 4% interest would allow spending to increase from \$230 to \$291 a month. THE POINT is that there are LOTS OF WAYS TO SUCCEED.

For “Ted” (with \$1,275 current Savings, working 36 hours a month and spending \$190, here are some options:

	Plan 1	Plan 2	Plan 3
# Work Hours/Month:	36	52	36
Avg Monthly Spending:	\$87	\$190	\$149
Annual Interest Rate:	0	0	4%
# Months to Save:	24	24	36

Again, there are LOTS OF WAYS TO SUCCEED.

4. Which PLAN do you prefer (is most realistic) and why? Explain your thinking.

Again, the key issue here is trade-offs and personal preferences. It is important, though, to point out that higher interest rates (in this case, 4%) do have an impact on savings.

SIMULATIONS 3 - 5: Build Your Own Plan

[http://www.clexchange.org/curriculum/dollarsandsense/Dollars and Sense II/ds2_lesson2.asp](http://www.clexchange.org/curriculum/dollarsandsense/Dollars%20and%20Sense%20II/ds2_lesson2.asp)

While the time frames for setting goals in each of these three simulations differ (up to 2 years in weeks, 5 years in months, or 50 years), the structure in each case is identical. Students are asked to specify a GOAL and a time frame to achieve a chosen dollar amount of SAVINGS. Next, they must plan the nature of their saving (regular amount, length of time over which money is saved) and spending, and select a realistic interest rate. In the last two simulations, students will begin to see the growing “power” of compounding, and how and why early saving can pay huge dividends in terms of interest payments over the course of years. Ideally, offering students choices to explore a wide array of scenarios will help them become more adept in putting together the financial pieces to achieve their financial GOALS.

SIMULATION 3 HANDOUT with ANSWERS and GUIDES FOR TEACHERS

Will My Saving and Spending PLAN Work?

Simulations 3–5 offer three different time frames (short, middle, and long-terms) for achieving Savings GOALS. They are intended to give students opportunities to define personal goals, devise strategies, and explore options for achieving their GOALS.

The handout identifies a set of decisions that are required to use the simulation. When experimenting with different strategies, students should be encouraged to change a single factor or variable at a time: this will help them see the relative importance (or, perhaps, un-importance) of each individual variable in different situations.

Again, the value of this exercise is maximized where and when students explain what they’ve learned through their hands-on exploration. What surprised them? What did they discover about the relative importance of different factors (e.g., income, spending, interest) under different time considerations? And what about trade-offs?

Identify a personal Savings GOAL and a time frame when you want to reach it.

1. GOAL: \$ _____ Achieve in _____ (weeks/months/years)

2. Select the appropriate simulation from the three available (> to 104 weeks/2 years; > 60 months/5 years; > 25 years) and specify:

- a. – SAVINGS GOAL: \$ _____
- b. – Beginning SAVINGS: \$ _____
- c. – Regular (weeks, months, years) Deposit: \$ _____
- d. - # Regular Deposits: _____
- e. – Date to Reach Goal? _____
- f. – Annual Interest Rate (as %)? _____%
- g. – Compounding Frequency/year? _____/year

3. Next, use the simulation to explore this and different options.

4. Print the option that you prefer (is most realistic). Explain your thinking and be prepared to justify your choice.

5. Finally, identify that factor or factors (of a – g listed above) that are most important for achieving your PLAN. Explain their importance below.

The core message of Lesson 2 is that the relative importance of income, spending, and compound interest differs based on GOALS and time horizons. For achieving short-term goals, primary consideration must focus on the difference between income and spending; as one looks at longer-term goals (involving years rather than weeks or months), compound interest becomes an ever-growing and even a dominant factor (where, over 20+ years, for instance, total interest can exceed total deposits. Learning how to adapt one's saving strategies to one's GOALS, and recognizing the value of savings discipline in unleashing the power of compound interest over years, are valuable insights for achieving personal financial GOALS.

Summary Challenge

Students are encouraged, after completing each of the simulations, to apply what they've learned to address a meaningful real world savings problem of personal interest. (Suggested written options are included with the handouts.) This challenge

obliges them to ground their understanding of how the system works with realistic decisions regarding income, spending, interest rates, and time. Sharing their plan engages others in constructive discussion of options and choices.

NOTE: It may be helpful for students working with these simulations to develop a budget that clearly lays out sources of Income (that are added to Savings) and Spending (withdrawn from Savings). See the simple budget form below.

Building a Monthly Household Budget

1 Monthly Income

After Tax Wages \$ _____

Interest on Savings \$ _____

(NOTE: In the simulations, this is automatically calculated)

TOTAL INCOME \$ _____

2 Home Expenses

Mortgage/Rent \$ _____

Additional Home Expenses

- Home Utilities \$ _____
(heat, electric, water, trash, etc.)
- Insurance \$ _____
- Taxes \$ _____
- Maintenance/Repair \$ _____

TOTAL HOME EXPENSES \$ _____

3 Vehicle/Transportation

Payments \$ _____

(own, rent, public transport)

Additional Car Expenses:

- Insurance \$ _____
- Fuel \$ _____
- Maintenance/Repairs \$ _____

TOTAL TRANS. EXPENSES \$ _____

4 Daily and Other

• Food/Dining Out \$ _____

• Phone, Internet, TV \$ _____

• Health/Beauty/Med \$ _____

• Clothing \$ _____

• Entertainment \$ _____

Other Including:

• Childcare \$ _____

• Life Insurance \$ _____

• Charitable Contributions \$ _____

• Emergencies \$ _____

TOTAL OTHER EXPENSES \$ _____

5 Credit Card Interest

Interest charged on Outstanding Credit Card Balance \$ _____

(NOTE: In the simulations, this is automatically calculated)

ADD UP #2, 3, 4, and 5

TOTAL EXPENSES \$ _____

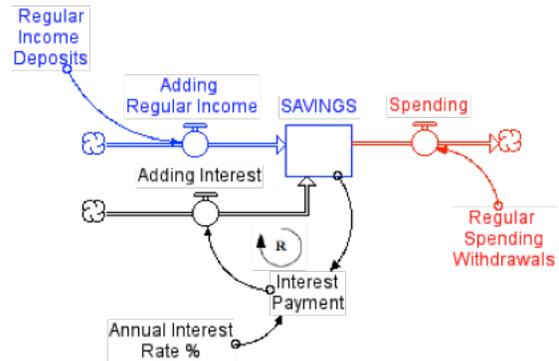
(Where Income exceeds Expenses, there is Savings; where Expenses exceed Income, there is Debt)

SUMMARY CHALLENGE HANDOUT with GUIDES FOR TEACHERS

Summary Challenge (after completing the lesson)

Pick #1 or #2 and write your answer in the space below (attach a graph or table, if desired):

1. Almost everyone makes one or more regular purchases of something they don't really need: perhaps it's something small (e.g., a daily soft drink, an unhealthy lunch, or worse —cigarettes...) or perhaps something(s) larger and more expensive. Given what you've learned about income, spending, interest, and savings, identify where and how someone you know (no names, please!) could benefit in the long-term (one or more years from now) if they were to rethink their spending.



2. Describe how you will manage your finances when you get your first full-time job, with an eye on having a healthy Savings by the time you turn 30 years old. Be realistic on what you'll earn (do some research!) each month after taxes, what you'll need and want to spend.

In this final exercise, students are challenged to apply what they've learned to address a meaningful real world savings problem of personal interest. In asking them to think long-term, they need to think practically about monthly income after taxes, where and how much money they or someone else spends each month, in addition to identifying realistic interest rates that strive to maximize interest payments.

Too many people don't realize how to control spending in ways that yield major benefits (in their healthy bank accounts!) over a period of time. The goal here is to challenge students to look around and see where and how they can translate short-term sacrifices (even small ones) into meaningful long-term benefits. Challenging them to explain their plan to others provides opportunities to engage others in similarly applying what they've learned.

Can I Recreate Past Spending?

1. Open the Simulation, read the Introduction, and summarize your task below:
2. Calculate (with the simulation or paper and pencil) your and Ted's TOTAL INCOME earned over 24 months (Hours per Month x 24 months x \$6.75) =

YOU: \$ _____	TED: \$ _____
Subtract Savings: - \$601	- \$1,275
YOU: \$ _____	TED: \$ _____

Divide this amount by 24 to determine monthly spending with NO Interest:

YOU: \$ _____	TED: \$ _____
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Use the simulation to (1) record monthly spending (type in the number), and (2) add the 1% interest. Run the simulation separately for you and Ted, and adjust monthly spending to account for the added interest. Fill in below:

	YOU (\$601)	TED (<\$1,275)
TOTAL INCOME:	\$ _____	\$ _____
TOTAL SPENDING:	\$ _____	\$ _____
TOTAL INTEREST:	\$ _____	\$ _____

3. How much would you have in your SAVINGS after 24 months if your monthly expenses were the same as what Ted spent?

\$ _____ Interest: \$ _____

4. What would Ted have in SAVINGS if his expenses were the same as yours?

\$ _____ Interest: \$ _____

5. What is the MAXIMUM interest either of you could earn in this simulation? \$ _____

How? Monthly hours: _____ Monthly Spending: \$ _____ Interest Rate: _____ %

6. In evaluating the impact of the different factors (Income, Spending, Interest), which would you designate as most important. Why? Least important? Why?

Can We Reach Our Saving GOALS?

1. Open the Simulation, read the Introduction, and summarize your task below:
2. To solve mathematically, use the equation below—OR use the simulation.

**Equation Solving for Regular Savings with
Compound Interest for Set Period of Time**

$$B = A(1 + i)^n + \frac{(I - S)}{i} [(1 + i)^n - 1]$$

where
 B = final Savings Amount
 A = initial Savings
 I = Regular Income
 S = Regular Spending
 i = interest rate (annual/# times making deposits each yr)
 n = length of time making deposits & earning interest

3. Consider using the simulation to explore multiple options (“What if...”) to achieve your or Ted’s GOAL. Start by defining each of the following variables below:

Hours you (or Ted) will work each month: _____

Average Monthly Spending: PRESENT: \$_____ PROPOSED: \$_____

Annual Savings Interest Rate (be realistic): _____%

Total # Months Plan to Save (24-36): _____

Use the simulation to determine if your plan “works”; then continue to explore options until you have THREE successful PLANS. Define each below.

	PLAN 1	PLAN 2	PLAN 3
# Work Hours/Month:	_____	_____	_____
Avg Monthly Spending:	\$_____	\$_____	\$_____
Annual Interest Rate:	_____%	_____%	_____%
# Months to Save:	_____	_____	_____

4. Which PLAN do you prefer and think is most realistic, and why? Explain your thinking.

Will My Saving and Spending PLAN Work?

Identify a personal Savings GOAL and a time frame when you want to reach it.

1. GOAL: \$ _____ Achieve in _____ (weeks/months/years)

2. Select the appropriate simulation from the three available (> to 104 weeks/2 years; > 60 months/5 years; > 25 years) and specify:

- a. – SAVINGS GOAL: \$ _____
- b. – Beginning SAVINGS: \$ _____
- c. – Regular (weeks, months, years) Deposit: \$ _____
- d. – # Regular Deposits: _____
- e. – Date to Reach Goal? _____
- f. – Annual Interest Rate (as %)? _____%
- g. – Compounding Frequency/year? _____/year

3. Next, use the simulation to explore this and different options.

4. Print the option that you prefer (is most realistic). Explain your thinking and be prepared to justify your choice.

5. Finally, identify that factor or factors (from a – g listed above) that are most important for achieving your PLAN. Explain their importance below.

Summary Challenge (after completing the lesson)

Pick #1 or #2 and write your answer in the space below (attach a graph or table, if desired):

1. Almost everyone makes one or more regular purchases of something they don't really need: perhaps it's something small (e.g., a daily soft drink, an unhealthy lunch, or worse —cigarettes...) or perhaps something(s) larger and more expensive. Given what you've learned about income, spending, interest, and savings, identify where and how someone you know (no names, please!) could benefit in the long-term (one or more years from now) if they were to rethink their spending.
2. Describe how you will manage your finances when you get your first full-time job, with an eye on having a healthy Savings by the time you turn 30 years old. Be realistic on what you'll earn (do some research!) each month after taxes, what you'll need and want to spend.

Lesson Title(s):

Dollars and Sense II, Lesson 1: Can Compound Interest Work for Me?

Dollars and Sense II, Lesson 2: How Can I Maximize Savings While Spending?

Overview:

The simulations in *Dollars and Sense II* introduce 6th – 12th grade students to the terminology and basic structures of *compound interest* and how it relates to saving and spending. Later simulations in this series also include *interest payments* on debt. Students become aware of the influence of time in the calculation of interest, both as it helps (in the case of savings) and hurts (in the case of debt).

Related Characteristic(s) of Complex Systems:

Conflicts arise between short-term and long-term goals.

Ideas and Examples for Connecting to the Characteristic:

Lesson 1 of the *Dollars and Sense II* series revisits the concept of exponential growth (also covered in D&S) through examples and exercises using compounding interest.

In Lesson 2, five simulations build understanding of the increasing role of interest as a source of savings when the savings timeframe is long. In the short term, the most benefit comes from managing spending because interest on savings is negligible. Over the long term, interest on savings becomes more important. Of course, money spent is not saved, so both *savings* and *time* are needed to maximize the benefits of compound interest.

The underlying heart of these simulations is the concept of the time value of money. It can be a difficult idea to grasp. Some ideas to develop understanding are:

1. Ask students to interview parents and grandparents about the cost of large and small purchases when they were young. Chart the responses as a class. They may be shocked to learn that a pack of gum cost five cents or a house could be purchased for \$20,000. Over time, prices generally increase (inflation), so the same amount of money buys less in the future. Earning interest is a way to “keep up” with inflation.
2. Although prices generally increase over time to buy new items, most purchases have a useful life and thus their value decreases. Have students compare the prices of new cars with the same models that are five years old. Values can easily be found on Kelley Blue Book: <http://www.kbb.com/>.

Resource(s)

A video that covers time-value concepts in student-friendly terms:

<http://www.youtube.com/watch?v=Dux1D-QZoLU>

An interesting take on decision-making as applied to purchases:

<http://www.youtube.com/watch?v=65mNGYereX8>