## Week Four: Time is Money!

Overview: This lesson introduces the concept of compound interest and how students should start saving as early as possible.

Preparation: Review the activity and session materials. Make sure your students have all the needed materials to complete the lesson.

Recommended Time: 30-45 minutes

## Materials:

Computer/Tablet with Internet
Writing Utensil
2 envelopes
2 sheets of blank paper
Glue or tape

1) Presentation: Start the lesson by asking your students, "Do you remember what interest means?" Remind them that when you deposit your money into a savings account at the bank or credit union, your money earns its own money, called interest. The bank pays you this interest because you've put your money into their bank.

Since it's YOUR money, you get to keep the interest, and it's added into your savings account total. Because it becomes part of your total savings account, the money you put into your account PLUS the interest you earned then earns it's own interest. This is called compound interest. If that explanation is too complicated, tell your students: "You earn interest on the money you keep in a bank because the extra money (interest) is added back into your bank account. Then you earn more money (interest) on your new amount of money (which is bigger now, thanks to that earned interest!)."

Let your students know that you realize compound interest doesn't usually get really exciting until there's a lot of money involved ("a lot" in kid-context = thousands of dollars). Yet, if your students don't pick up this habit when they have $\$ 5$ to manage, then getting to the point where they can save enough money to make compound interest exciting will be more difficult.

We want to instill good money habits in our students now, while they're young and the stakes are low, so that those same money habits they've established will help make their money soar when they get to the point where they're earning real paychecks.

Yet, what kid is going to get excited about earning $\$ 0.01$ and $\$ 0.015$ due to compound interest?
2) Watch: Have your students watch the video What is Compound Interest?
3) Discussion: After you watch the video, ask the following questions. You can ask them verbally or have students write out their answers.

- How much money did they start with in the video? Answer - \$100
- How much did they have after 50 years? Answer - $\$ 11,739$
- How is that possible? (Have them explain compound interest in their own words.)


## 4) Activity: Compound Interest Calculator

In this activity, you will show your students how much money their savings accounts would grow to either 20 or 30 years from now, based on their savings behavior (and the magic of compounding interest).

Directions - Have your students click on Compound Interest Calculator below. Tell your students to enter:
Initial Investment: \$1,000
Contribute Per Month: \$10
Length of Time in Years You'll Contribute: Have them selected 20 years
Interest Rate: 2.5\%
Compounded: Let your students play with the four choices - annually, semi-annually, monthly, and daily

When they are finished, tell them to click on the button "show table". There, they'll be able to see their total contributions, and how much their money earned over the years for them. So, at $\$ 10 /$ month contribution, they will have contributed $\$ 2,500$ over 20 years. BUT, their money will have earned an additional $\$ 774.53$ through compound interest, meaning they'll have a total of $\$ 3,274.5320$ years from now, instead of just the $\$ 2,500$ they contributed over time.

If they want, they can complete this activity again, but this time use 30 years.

## Compound Interest Calculator

## 6) Activity: Savings Goals

Distribute an envelope and sheet of paper to each student. Have students draw a picture of an item they would like to save for. Tell students to write the approximate cost of the item on the picture. Have students glue or tape their picture on the front of the envelope. Tell students to experiment with calculating how much they would need to save each week or month, and the total number of weeks or months to reach the goal. When students have a reasonable plan, tell them to write it on the back of the envelope. Students should add money to this envelope over time and work towards purchasing this item.

Now distribute a 2nd envelope and sheet of paper to each student. Have students draw a picture of an item they would like to save for in the future - car, house, college, etc. Tell students to write the approximate cost of the item on the picture. Have students glue or tape their picture on the front of the envelope. Tell students to experiment with calculating how much they would need to save each week or month, and the total number of weeks or months to reach the goal adding $1.75 \%$ interest. Have them use this to calculate their total. For example, if they were to start with $\$ 200$ and they save $\$ 10$ a month for 10 years, they will have $\$ 1,536$ saved in 10 years. In 20 years, they will have $\$ 3,127$ saved. Remind them that as they get older and earn income from a job, they may be able to save more than $\$ 10$ a month.

When it is safe, have your students contact a bank or credit union to open up a savings account so that they can start saving for this future item and have their money earn interest over time!
6) Discussion: Review the term compound interest and remind students they will need to open a savings account in order for their money to earn interest. The earlier they start adding money to their savings account, the more money they will have in the long run. Even if they stop adding money to their account, their current money will continue to earn money for them. Time is money!

The Money JAR - We love teaching kids about money on "The Money JAR", but as parents we often need help knowing how to do it. Click here to listen to this week's episode - A Parent's Guide to Raising Money Smart Kids.

