# Lesson | Saving Money for Your Future

What is the value of saving money?

## Objective

- Explore saving money as a way to achieve their own financial goals
- Explore the difference between simple and compound interest
- Identify and discuss key terms and concepts associated with saving money

## Time

45 Minutes

## Materials

- Saving with a Purpose! printable
- Index cards
- 100 large paper clips
- 100 small paper clips
- Calculator
- 4 small boxes or baskets
- 1 die (number cube)
- The Biggest Bang for Your Buck Game, optional

## PART I—Engaging the Learner

**Starter Questions:**

- What reasons do people have for saving money rather than spending it immediately? (Saving for college, a new car, or a vacation)
- How do people save their money? (Answers might include putting money in a bank.)
- Can the money in a savings account make more money while in the account?

## PART II—Activity: Simple Interest Vs. Compound Interest

Provide students with a visual representation that contrasts the yield of simple interest vs. the yield of compound interest. Review the SAVING MONEY—WORDS TO KNOW section of this lesson plan with students.

**Materials** (based on 20 students):
20 index cards, 100 large paper clips, 100 small paper clips

Give each student an index card. Have them label the cards "$100." This represents their initial deposit of money (**principal**) into a savings account. Divide the class in half. Tell one half of the class that they will receive **simple interest** on their principal, and tell the other half of the class that they will receive **compound interest** (compounded annually) on their principal. This activity will simulate **approximate** interest growth over a period of five years at an interest rate of 5%. Tell the students that they will receive paper clips at the end of each year to represent the interest earned on their principal; large paper clips represent $5 and small paper clips represent $0.25. Please also explain to students that the interest rates used in these exercises are for illustrative purposes only and are not representative of current market rates.

To represent the interest at the end of **Year 1**, give every student a large paper clip. Students receiving simple interest should keep the paper clips separate from their index cards. Students receiving compound interest should attach the paper clips to their cards. This combined amount represents the new principal going into **Year 2**. For **Years 2–5**, the simple interest students should receive is one large paper clip for each year, always keeping the "interest" paper clips separate from their index card (principal). For students receiving compound interest, give students paper clips as follows:

**Year 2**: 1 large and 1 small paper clip (The small paper clips are representing interest that is being earned on previous interest which has become a part of the principal.)
**Year 3**: 1 large and 2 small paper clips
**Year 4**: 1 large and 3 small paper clips
**Year 5**: 1 large and 4 small paper clips

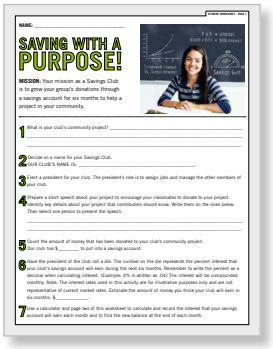
After the distribution of the **Year 5** interest, have students find the total value of their accounts.

Ask the students to contrast the amount of interest earned with a simple interest account compared to an account receiving compounded interest. Ask them to explain how compounding yields a greater account value.

As a class, calculate the actual compound interest earned in this exercise, and then do the same using $10,000 as the principal so that students can see how compound interest can accumulate.

**Compound interest earned with $100 beginning principal and 5% annual interest (rounded to the nearest penny):**

Beginning principal = $100
Year 1 interest earned: $100 x 0.05 = $5
*New balance = $105*
Year 2 interest earned: $105 x 0.05 = $5.25
*New balance = $110.25*
Year 3 interest earned: $110.25 x 0.05 = $5.51
*New balance = $115.76*
Year 4 interest earned: $115.76 x 0.05 = $5.79
*New balance = $121.55*
Year 5 interest earned: $121.55 x 0.05 = $6.08
*Final balance = $127.63 (Interest earned over five years = $27.63)*


NAME: _____

SAVING WITH A PURPOSE!

**MISSION:** Your mission as a Savings Club is to grow your group's donations through a savings account for six months to help a project in your community.

1 What is your club's community project? _____

2 Decide on a name for your Savings Club.
OUR CLUB'S NAME IS: _____.

3 Elect a president for your club. The president's role is to assign jobs and manage the other members of your club.

4 Prepare a short speech about your project to encourage your classmates to donate to your project. Identify key details about your project that contributors should know. Write them on the lines below. Then select one person to present the speech.

5 Count the amount of money that has been donated to your club's community project.
Our club has $_____ to put into a savings account.

6 Have the president of the club roll a die. The number on the die represents the percent interest that your club's savings account will earn during the next six months. Remember to write the percent as a decimal when calculating interest. (Example: 4% is written as .04) The interest will be compounded monthly. Note: The interest rates used in this activity are for illustrative purposes only and are not representative of current market rates. Estimate the amount of money you think your club will earn in six months: $_____.

7 Use a calculator and page two of this worksheet to calculate and record the interest that your savings account will earn each month and to find the new balance at the end of each month.

**Simple interest earned on $100 at 5% interest for five years is $25.**

**Compound interest earned with $10,000 beginning principal and 5% annual interest (rounded to the nearest penny):**

Beginning principal = $10,000

Year 1 interest earned: $10,000 x 0.05 = $500

*New balance = $10,500*

Year 2 interest earned: $10,500 x 0.05 = $525

*New balance = $11,025*

Year 3 interest earned: $11,025 x 0.05 = $551.25

*New balance = $11,576.25*

Year 4 interest earned: $11,576.25 x 0.05 = $578.81

*New balance = $12,155.06*

Year 5 interest earned: $12,155.06 x 0.05 = $607.75

*Final balance = $12,762.81 (Interest earned over five years = $2,762.81)*

**Simple interest earned on $10,000 at 5% interest for five years is $2,500.**

## PART III—Activity: Savings Club

**SAVING WITH A PURPOSE!** is a simulation game that joins students together into "saving clubs" to pool their money to help fund new equipment for a local playground, ballpark, or recreation center.

**Materials:** SAVING WITH A PURPOSE! activity sheet, calculator, and 4 index cards or small pieces of paper for each student; 4 small boxes or baskets; 1 die (number cube)

Tell students that they will be "donating" imaginary money to fund a theoretical project that will benefit your community's playground, ballpark, or other recreation center.

**1** Have the students identify four projects that would benefit your community playground, ballpark, or recreation center, such as a new backstop for the baseball field or a new sliding board for the playground. Write the names of the four projects on the board. Label each small box or basket with the name of the project.

**2** Tell the students that they will have the opportunity to contribute to any or all of the projects with an "imaginary" $20. The donated money will be used to open a savings account where it will earn compounded interest for six months before the money is donated to the imaginary community projects.

**3** Have one volunteer for each project present a short speech about why students should contribute their money to that project.

**4** Give each student four index cards or small pieces of paper. Have them label each card with "$5." Have students deposit their $5 bills into the boxes for the projects they would like to support. They may put all of their money into one project or spread their money out among all four projects.

**5** Divide the class into four groups; one for each project. The groups will monitor the growth of their savings account for six months.

**6** Review the instructions for the activity from the worksheet. Explain to students that interest rates vary at times depending on many factors in the economy. Therefore, a die will be used to determine the interest rate for the activity to simulate the impact of various interest rates on savings accounts. Again, remind students that the interest rates used in these exercises are for illustrative purposes only and are not representative of current market rates.

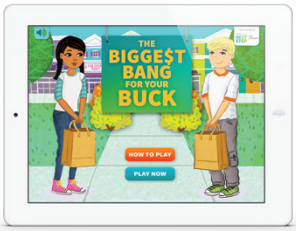
**7** As students begin to near the third month of interest calculations, announce that there has been a major improvement in the economy and all interest rates have been raised 1%. Have students complete the calculations for months 4–6 using the higher interest rate (e.g., a group has been using a 2% interest rate for months 1–3. Beginning with month 4, the interest rate is raised to 3%.).

## PART IV—Investment Wrap-Up Questions

What factors influence how much money can be earned when saving money? (Interest rates, the amount invested, and/or the amount of time the money is invested)

Do you think saving and investing money is wise? Why?

**Bonus:** How can inflation impact the value of the money you save?




## SAVING MONEY—WORDS TO KNOW

**Savings**—money that is put into accounts, such as savings accounts and checking accounts. Money can usually be deposited and/or withdrawn at any time.

**Principal**—the initial amount of money that is put into a savings account.

**Simple Interest**—money earned for "loaning" money to a bank (putting your money in a savings account).

**Compound interest**—arises when interest is added to the principal, so that, from that moment on, the interest that has been added also earns interest. This addition of interest to the principal is called compounding.

**Fun Fact:** "Rule of 72" If you divide the number 72 by the interest rate of your savings account, you will be able to determine the approximate number of years that it will take to double your principal investment, e.g., you invest $1,000 in an account with an 8% interest rate (compounded annually). The account will be worth $2,000 in nine years. 72 ÷ 8 = 9.

**NAME:** _____

# SAVING WITH A PURPOSE!


**MISSION:** Your mission as a Savings Club is to grow your group's donations through a savings account for six months to help a project in your community.

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**1** What is your club's community project? _____

_____

_____.

**2** Decide on a name for your Savings Club.
OUR CLUB'S NAME IS: _____.

**3** Elect a president for your club. The president's role is to assign jobs and manage the other members of your club.

**4** Prepare a short speech about your project to encourage your classmates to donate to your project. Identify key details about your project that contributors should know. Write them on the lines below. Then select one person to present the speech.

_____

_____.

**5** Count the amount of money that has been donated to your club's community project.
Our club has $_____ to put into a savings account.

**6** Have the president of the club roll a die. The number on the die represents the percent interest that your club's savings account will earn during the next six months. Remember to write the percent as a decimal when calculating interest. (Example: 4% is written as .04) The interest will be compounded monthly. Note: The interest rates used in this activity are for illustrative purposes only and are not representative of current market rates. Estimate the amount of money you think your club will earn in six months: $_____.

**7** Use a calculator and page two of this worksheet to calculate and record the interest that your savings account will earn each month and to find the new balance at the end of each month.

**NAME:** _____

# SAVING WITH A PURPOSE! SAVINGS WORKSHEET

**Directions:** Use a calculator to calculate and record the interest that your savings account will earn each month and to find the new balance at the end of each month.

## REGIONS BANK SAVINGS ACCOUNT

**CALCULATE EACH MONTH'S INTEREST HERE:**
Balance x Interest Rate = Interest Earned

| | | | |
|---|---|---|---|
| Beginning principal | | $_____ | $_____ x ._____ = $_____ |
| **Month 1** Interest | + | $_____ | |
| *New Balance* | | $_____ | $_____ x ._____ = $_____ |
| **Month 2** Interest | + | $_____ | |
| *New Balance* | | $_____ | $_____ x ._____ = $_____ |
| **Month 3** Interest | + | $_____ | |
| *New Balance* | | $_____ | $_____ x ._____ = $_____ |
| **Month 4** Interest | + | $_____ | |
| *New Balance* | | $_____ | $_____ x ._____ = $_____ |
| **Month 5** Interest | + | $_____ | |
| *New Balance* | | $_____ | $_____ x ._____ = $_____ |
| **Month 6** Interest | + | $_____ | |
| ***FINAL BALANCE*** | | $_____ | |

## Celebrate Your Project!

Your Savings Club has chosen an imaginary project to help make your community great. On the back of this paper, create a mini-poster or flyer to illustrate your project. Include your Savings Club name and show how the money your group is raising will be used to help the community.

**NOMBRE:** _____

# ¡AHORRAR CON UN PROPÓSITO!


**MISIÓN:** Tu misión en el Club del Ahorro es aumentar las donaciones del grupo a través de una cuenta de ahorros seis meses a fin de ayudarle a un proyecto de tu comunidad.

1 ¿Cuál es el proyecto comunitario de tu club? _____

_____

_____.

2 Piensa en un nombre para tu Club del Ahorro.
NUESTRO CLUB SE LLAMA: _____.

3 Elije un presidente para tu club. La función del presidente es asignar tareas y dirigir a los demás miembros del club.

4 Prepara un breve discurso sobre tu proyecto para alentar a tus compañeros de aula a que hagan donaciones tu proyecto. Identifica los detalles clave proyecto que deberían conocer los donantes. Escríbelos en los renglones de abajo. Luego, elige a una persona para que presente el discurso.

_____

_____.

5 Cuenta la cantidad de dinero que se ha recaudado para el proyecto comunitario de tu club.
Nuestro club tiene $_____ para depositar en una cuenta de ahorros.

6 El presidente del club lanzará un dado. El número en el dado representa el interés porcentual que se obtendrá en la cuenta de ahorros club durante los próximos seis meses. Recuerda escribir el porcentaje en decimales al calcular el interés. (Por ejemplo: 4 % se escribe como 0.04). El interés se capitalizará mensualmente. Nota: Las tasas de interés utilizadas en esta actividad son con fines ilustrativos únicamente y no son representativas de las tasas actuales del mercado. Estima la cantidad de dinero que crees que ganará tu club en seis meses: $_____.

7 Utiliza una calculadora y la página dos de esta hoja de ejercicios para calcular y registrar los intereses que se ganarán en tu cuenta de ahorros cada mes, y para averiguar el nuevo saldo al final de cada mes.

**NOMBRE:** _____

# ¡AHORRAR CON UN PROPÓSITO!

## HOJA DE EJERCICIOS SOBRE EL AHORRO

**Indicaciones:** Utiliza una calculadora para calcular y registrar los intereses que se ganarán en tu cuenta de ahorros cada mes, y para averiguar el nuevo saldo al final de cada mes.

### CUENTA DE AHORROS EN REGIONS BANK

| | | |
|---|---|---|
| Monto inicial | | $_____ |
| **Mes 1** interés | + | $_____ |
| *Nuevo saldo* | | $_____ |
| **Mes 2** interés | + | $_____ |
| *Nuevo saldo* | | $_____ |
| **Mes 3** interés | + | $_____ |
| *Nuevo saldo* | | $_____ |
| **Mes 4** interés | + | $_____ |
| *Nuevo saldo* | | $_____ |
| **Mes 5** interés | + | $_____ |
| *Nuevo saldo* | | $_____ |
| **Mes 6** interés | + | $_____ |
| ***SALDO FINAL*** | | $_____ |

### CALCULA EL INTERÉS MENSUAL AQUÍ:

Saldo x tasa de interés = interés ganado

$_____ x 0._____ = $_____

$_____ x 0._____ = $_____

$_____ x 0._____ = $_____

$_____ x 0._____ = $_____

$_____ x 0._____ = $_____

$_____ x 0._____ = $_____

## ¡Celebra tu proyecto!

Tu Club del Ahorro ha elegido un proyecto imaginario para ayudar a engrandecer a tu comunidad. Al dorso de esta hoja, crea un minipóster o folleto para ilustrar tu proyecto. Incluye el nombre de tu Club del Ahorro y muestra cómo se utilizará el dinero que está recaudando tu grupo para ayudar a la comunidad.