

Teacher Notes – Simple and Compound Interest (Day 4)

Topic: This lesson is designed to help students see the correlation between compound interest and exponential growth. They will recognize the benefits of a savings account that compounds frequently, versus an account that compounds annually or not at all.

Objective: Given Earning Interest worksheet and students savings plan created in the 1st six weeks the student will complete tables and compute exponential regression equations, $y = a(b)^x$, to compare investments with compound interest.

Time Table: This lesson is designed for a 90-minute class period or two 45-minutes class periods.

TEKS Focus: M7A ~ Analyze types of savings options involving simple and compound interest and compare relative advantages of these options.

Additional TEKS: M1B, M2D

Materials: Individual student budgets from Day 1 showing the amount of their income that they have chosen to set aside in a savings account each month, in-class packet (“Earning Interest”), access to a computer lab, calculators

Lesson Overview: The class will begin by working through the first three pages of the packet together, as the teacher instructs them about the definitions and formulas of simple and compound interest. Later, students will work with their personal budget from the beginning of the year to see how interest would affect their **savings balance**. Finally, students will work on computers in order to find the most appealing savings account that will enable them to obtain the greatest final balance possible.

Grouping: The class will work together (with the teacher) on the first three pages of the packet, as they learn about simple and compound interest. They will work individually on the final two pages of the packet, which are based on their personal budget. They may work individually or in small groups in the computer lab, as they research possible savings account options.

Procedures:

1. As a class, the teacher and students will work through the first three pages of the in-class packet together. The teacher should look to make connections between compound interest and exponential growth, which the students have already learned.
2. The students will complete the final two pages of the packet individually. They will refer to their personal budget that they created earlier in the year to remember how much money they have chosen to set aside each month for savings. Students should recognize how their final balance in their savings account will vary based on interest rate and the frequency that the interest is accrued.
3. Students will have an opportunity to research existing savings accounts on the internet, in order to find realistic interest rates and to learn how frequently most banks deposit interest into a savings account. They will select one savings account into which they “invest” a lump sum. This lump sum will be the accumulation of their monthly savings for a year, assuming no interest has been accrued to date.
4. Students should print the page from the internet that shows their selected account information and turn this page in to the teacher.
5. Students should complete the packet by the end of class.

Homework: Students will complete Simple and Compound Interest worksheet.

Extensions: Communicate to students that they will want to obtain the largest balance in their savings account as possible. In future months, they will have an opportunity to earn extra money and “invest” the amount of money in their savings account into the stock market. They should keep this in mind when they are searching for a savings account that will offer a high interest rate and compounding frequency.