

## SCIENTIX LESSON PLAN

### Title

**TAKE CARE OF YOUR MONEY!**

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### Subjects

Algebra in real life, Economics

### Aim of the lesson

By the end of the lesson the student will:

- Use numerical computing in everyday life
- Analyze quantitative relationships between different sizes, using the percentage ratio and interest calculation
- Calculate simple (compound) interest on a bank deposit
- Compare the results obtained for the same amount and the same term to make a good deposit
- Compare types of credits and calculate the amount repaid at the end of the term
- Calculate the balance between the income and expenses of a person or a family over a given period of time.

### Age of students

14-16 years old

### Time

Preparation time: 2 hours

Teaching time: 2 x 50 minutes

### Teaching material

Online:

<https://www.youtube.com/watch?v=sssAC2plfHs>

<https://www.bancatransilvania.ro/simulator-credite/>

[https://vivacredit.ro/?utm\\_source=bingads-Gen&msclkid=40a3f595f778120ed25eae6846ba5fad](https://vivacredit.ro/?utm_source=bingads-Gen&msclkid=40a3f595f778120ed25eae6846ba5fad)



<https://ing.ro/persoane-fizice/credite/ing-personal>

<https://www.cec.ro/persoane-fizice/credite/credite-de-consum/credite-de-nevoi-personale>

<https://www.otpbank.ro/credit/pl>

Offline: paper, pen

## 21<sup>st</sup> century skills

How the lesson plan corresponds to 21<sup>st</sup> century skills. To find out more: <http://www.p21.org/our-work/p21-framework>

This lesson plan comprises several activities that help to achieve the following skills defined as 21<sup>st</sup> century skills:

- **Critical thinking**
- **Problem-solving**

Specifically, the students will:

- Apply the calculation algorithm with percentages for interest calculation.
- Analyze the efficiency of investing the same amounts of money under a simple and compound interest rate over the same period of time.
- Compare the amount that should be repaid to a credit using simple and compound interest at different banks to choose the convenient interest rate.
- Demonstrate team working abilities, communicating effectively.
- Analyze and evaluate major alternative points of view to find variants to balance the income and expenditure of a person or family over a given period of time.
- Identify and document on the Internet the cost of credits, deposits to communicate with the team.
- Identify 2 weak points, 2 advantages of borrowing / depositing offers.
- Argue the solution chosen.

## Lesson Plan

Name of activity	Procedure	Time
<b>Organization Video presentation</b>	The class will be divided into groups of 5 students	3 min
<b>Introduction of theoretical notions</b>	The teacher explains the concepts of Needs/Wants/Savings	7 min
<b>Students' research</b>	Students then: <ul style="list-style-type: none"> <li>● Search information for the concept of <i>interest</i> individually, using the sources of information saved on "Internet</li> </ul>	20 min

	resources" and write the adequate formulas. <ul style="list-style-type: none"> <li>Students access the designated banks' websites.</li> </ul> They pursuit repayment simulations of loans on the websites of the recommended banks, as well as purchases of consumer goods in instalments.	
<b>Students' teamwork</b>	The information gathered will be shared and analysed by the students in each group. Each group will: <ul style="list-style-type: none"> <li>Decide which bank has the best offers and will give arguments, by comparing the results.</li> <li>Identify 2 weak points, 2 advantages of borrowing / depositing offers.</li> </ul> Create a publicity spot for the chosen bank.	20 min
<b>Students' presentation and evaluation/ feedback</b>	<ul style="list-style-type: none"> <li>Every group will present to the entire class the result of the analysis and the publicity spot.</li> <li>Assessment</li> <li>Feedback</li> </ul>	50 min

## Assessment

*Topic I (90 points) - Only the results are jotted down on the worksheet.*

(15p) 1. 25% of 9600 is ....

(15p) 2. 10% of the capital of a company is 7000 euros, which is used for transport. Therefore, the company has a capital of .....euros.

(20p) 3. One coat costs 250 euros. The buyer will pay ... euro, if at the price of the coat the VAT rate of 24% is added.

(20p) 4. After a 10% discount, a product costs 99 euros. Therefore, the original price was ...

(20p) 5. Alina deposited on a bank the sum of 350 euro with an interest rate of 8% per year. After 1 year, Alina will take from the bank the amount of ..... euros.

## Student feedback

Questionnaire to get feedback from students:

*Name and surname:*

1. *What are the steps you have taken to achieve the actual workload?*

2. *By solving this task, you have learned:*

- a)
- b)
- c)

3. *Difficulties encountered were the following:*

- a)
- b)
- c)

4. *I think I could improve my performance if:*

- a)
- b)

5. *I think my work could be appreciated as:*

.....

### **About Scientix**

Scientix promotes and supports a Europe-wide collaboration among STEM (Science, Technology, Engineering and Mathematics) teachers, education researchers, policymakers and other STEM education professionals. If you need more information, check the [Scientix portal](#), or contact either the [Scientix National Contact Point](#) or Scientix Ambassadors in your country.