

Sustainability Economics and Finance Education Program

LENDING A HAND – EXTENSION

Give a Person a Fish

Extension 1

For younger grades

Instead of a small group discussion, develop a thinking board

Students discuss as a class the meaning of the quotation, which is added to the thinking board, similar ideas become connected to one another. Until the whole class develops an understanding of the quotation.

A Hand Up, Not a Hand Out

Extension 1

For Grade 3 Social Studies – Communities in the World

Students discuss the differences of quality of life from different communities in the world.

Activity:

1. In groups of 6, each student will choose a community in the world (in a developing country or developed country), be sure there is a variety of communities within each group with equal number of communities in a developing country and developed country.
2. With the whole class, discuss various social, cultural and linguistic characteristics that may affect quality of life in communities. As a class choose 10 specific characteristics that may affect the quality of life in communities the most.
3. Students will research their community and uncover the 10 specific characteristics discussed in Step 2 for their community.
4. Within a group, students will share their community they have researched to their peers. Once everyone has shared the information about their community, students will reflect how life may be different in a developing country compared to a developed country.

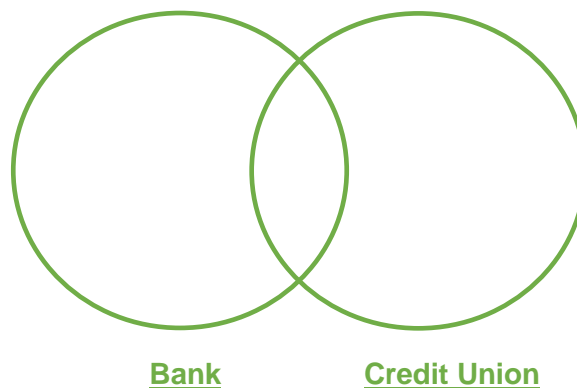
Barriers to Getting Started

Extension 1

For younger grades

Instead of focusing on the 5C's, focus on the definition of a Bank and a Credit Union.

Develop a Venn Diagram of the similarities and differences of a Bank and a Credit Union.



Main Activity: Microfinance

Extension 1

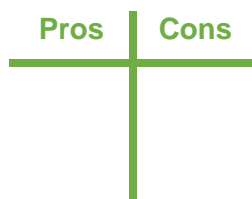
Extra video to explain microfinance: <https://www.youtube.com/watch?v=bpSNM625LFU>

**All videos have the ability to add captions to accommodate students, simply press the CC button to add captions

Microfinance Organizations

Extension 1

Split students into 4 groups. Each group will be assigned to research one of the four organizations and to develop an informative presentation about that organization. As a class, after each presentation, students will discuss the pros and cons about that organization which can be written on the board. When all presentations have been conducted, the class will choose which organization they will move forward with.



Steps in your microfinance loan

Extension 1

For a mathematic classroom (Grade 6, 7, 8), instead of the use of the loan calculator have students calculate the repayment value of a loan with interest rates.

1. For students to complete simple compound interest rates, the following activity can be incorporated.

Compound interest rates: Interest that is added to the sum of the loan at the beginning of the term. This means that interest is earned on the total sum of the loan with accumulated interest.

Remember when calculating with interest rates: 10% = 0.10 (move the decimal place 2 places to the left)

Periods can be Annually (once a year), Semi-Annually (twice a year), Monthly (12x a year)

Students complete the chart with varying loan start amounts and interest rates. Students can add additional years to the chart to further their practice of compound interest rates.

Year	Loan at the Start	Interest Amount	Loan at the End
0	Amount of loan at the start	Loan at Start (Year 0) X Interest Rate	Loan at Start + Interest Amount
1	Loan at the End of Year 0	Loan at Start (Year 1) X Interest Rate	Loan at Start (Year 1) + Interest Amount
2	Loan at the End of Year 1	Loan at Start (Year 2) X Interest Rate	Loan at Start (Year 2) + Interest Amount

Extension 2

For advanced mathematics classes (Grade 9, 10):

To challenge students, ask students if there is an easier method to calculating the loan at the end of a period using compound interest instead of the chart.

Students should be able to look at the chart and derive a formula from it.

For example:

Year	Loan at the Start	Interest Amount	Loan at the End
0	1000	$1000 \times 0.10 = 100$	$1000 + 100 = 1100$

From the chart, you can see:

Interest rate is 10% which is 0.10

$$1000 + (1000 \times 0.10) = 1100$$

Rearrange the formula:

	Loan at Start		Interest Amount
	1000	+	1000 x 0.10
Add x 1	1000 x 1	+	1000 x 0.10
Factor 100	1000	x	(1 + 0.10)
Simplify	1000	x	1.10

Final formula:

$$1000 \times 1.10 = \text{Loan at End}$$

$$\text{Loan at Start of Period} \times (1 + \text{Interest Rate}) = \text{Loan at End of Period}$$

To further the formula, students can also understand the exponents can help to make the calculations easier:

$$\text{Loan at Start of Period} \times (1 + \text{Interest Rate})^{\# \text{ of Periods}} = \text{Loan at End of Period}$$

The common formula used is:

$$\mathbf{FV = PV \times (1 + r)^n}$$

FV = Future Value

PV = Present Value

R = annual interest rate

n = number of periods

4. Students should have a basic understanding of percentages and how they relate to interest rates.
 - a) What is the interest amount for a loan of \$100 with an interest rate of 30%?
 - b) What is the interest amount for a loan of \$100 with an interest rate of 15%?
 - c) What is the interest amount for a loan of \$300 with an interest rate of 10%?