



Project: Financial literacy as a pathway to equal opportunities

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ACTIVE LEARNING ACTIVITIES FOR TEACHING FINANCIAL LITERACY AT SCHOOL

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INTRODUCTION

Why Financial Literacy Matters in Schools

Financial literacy is a critical life skill that directly impacts a student's future well-being. Teaching it in schools ensures that all young people, regardless of their background, start adulthood with the tools necessary to make informed financial decisions.

- **Navigating the Modern Economy:** In a world of digital banking, microtransactions, and complex financial products, youth need to understand budgeting, saving, and the risks of debt early on.
- **Fostering Independence:** Early financial education builds confidence, prevents common pitfalls like high-interest debt, and teaches the value of long-term planning, such as investing and entrepreneurship.
- **Promoting Social Equity:** Providing structured financial knowledge at school levels the playing field, breaking cycles of financial insecurity.

Integration: Subjects and Age Groups

Financial literacy should be introduced progressively across different age groups and integrated into existing subjects, but also there can be special lessons for it. Still it must not be treated as an isolated topic, but has to be supported by all teachers:

- **Primary School (Ages 7–11) | Mathematics, Class Tutorials, mini-mini company programme:** Focuses on the basics of money, counting change, understanding needs versus wants, and simple saving habits.
- **Lower secondary school (Ages 12–15) | Civics, Math and Technology, Home Economics, minicompany programme:** Introduces personal budgeting, the basics of banking, consumer rights, basic accounting, and understanding income and taxes.
- **High School (Ages 16–19) | Civics, Economics, Entrepreneurship, Mathematics:** Delves into complex topics like investments, loans, financial planning, starting a business, and managing risks.

In our developed materials, we focus primarily on upper secondary school and lower secondary school.

The Power of Experiential Learning in Financial Literacy

While traditional lectures can introduce financial concepts, experiential learning—learning by doing—is far more effective for building true financial capability. Financial literacy is not

just about memorizing definitions; it is about behavior, decision-making, and critical thinking.

- **Bridges the Gap Between Theory and Practice:** Hearing about a budget is vastly different from actually managing one. Active learning, such as running a student company or participating in financial simulations, forces students to navigate real-world trade-offs, handle limited resources, and witness the immediate consequences of their choices.
- **Enhances Knowledge Retention:** Passive listening rarely leads to long-term understanding. When students engage in hands-on activities, solve financial puzzles, or collaborate on business ideas, they process information deeply, leading to significantly higher engagement and retention.
- **Normalizes Risk in a Safe Environment:** Experiential learning allows students to make financial mistakes—like miscalculating production costs or overspending a budget—where the stakes are low. Learning from these setbacks builds resilience and sharpens problem-solving skills before they handle real money.
- **Shifts Mindsets from Passive to Entrepreneurial:** Active participation transforms students from passive consumers into proactive financial decision-makers. It fosters accountability, builds confidence, and equips them with the practical skills needed to navigate the modern economy.

1. BASIC UNDERSTANDING ABOUT MAKING REASONABLE DECISIONS ABOUT FINANCIAL MATTERS

1.1. Take or Quit

INSTRUCTIONS WHAT TO TELL YOUR STUDENTS WHEN THE GAME STARTS

Each of you can earn some money, or not!

The game is simple. The class is divided into two equal parts. The first part will stand in front of the class, the others will sit back, or even better, will leave the classroom.

You can earn from 1-9 € or nothing, it depends on two people, you and your partner, but you do not know who your partner is.

The first group takes one card from the desk (they are upside down, so you cannot read them before. On the right corner up, there is your code, e.g. A1, B2, etc. Please remember it I may give you 10 euros, but you have to share it with some other person from the second group and you do not know who it is. You have to select your offer: if you choose 9/1, it means, you want to take 9 euros to yourself and give 1 euro to the unknown person. But you can also decide 8/2, 7/3, even 1/9, which means that you take one euro to yourself and give 9 to another person. Choice is yours. Please draw a circle around the pair that describes your decision. It is your offer.

Put the paper to the table again so, that nobody sees your code or your decision.

When everybody from the first group is ready, the facilitator shuffles the cards and invites the second group. Each of them takes one card. You look at the word written in red: you have to accept or disagree with the offer (the circled pair of numbers). Remember, the first number presents the money the first person wants to take to him/herself, and the second number is what you get.

You have to draw a circle around YES or NO. Depending on whether you accept this offer or not. If you circle yes, hypothetically you both get the amount of money written to the card. If you say NO, nobody gets anything.

TIPS FOR THE FACILITATOR

When students have made their decisions, make a quick statistics about the results, what was the most common offer? What was the offer mostly denied, and which one was accepted?

Tell students by codes, not by names, which pairs earned money and which ones not. If you want you can even give one pair (by random choice) 10 euros and ask them to divide it according to their offer-acceptation.

Now ask students: *Why did you accept these offers, and why you did not? But what about 1000 euros, or more, what then?*

Answer: Economists say that it is always wise to accept. Both sides get more than they had before. Why people do not accept: they feel insulted, it seems to be unfair, if another

person takes too much. Usually people tend to accept, if offers are bigger. It is easy to refuse if this money is small and you feel cheated.

Cards for playing for a group with 48 persons.

A1 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No	B2 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No	C3 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No
D4 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No	E5 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No	F6 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No
G7 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No	H8 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No	I9 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No
J10 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No	K11 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No	L12 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 2/8 1/9 I accept: Yes No

M13 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No	N14 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No	O15 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No
P16 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No	R17 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No	S18 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No
T19 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No	U20 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No	V 21 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No
W 22 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No	X23 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No	Y 24 I offer: 9/1 8/2 7/3 6/4 5/5 4/6 3/7 8/2 9/1 I accept: Yes No

1.2. Practical Problems: Acting According to the Marginal Principle

Give students different case studies and ask them to decide, what can be the wisest decision according to the principles of financial literacy.

Tasks:

Choose **ONE best answer**.

Discuss with your peers.

Be ready to justify/explain your answer.

1.2.1. An Awful Movie

Suppose you go with a friend to see a movie called “*Blood and Guts*” and you buy non-refundable tickets. While watching, your friend turns to you and says: “*This movie is disgusting, let’s leave!*”

If you agree that the movie is terrible and makes you feel sick, but you don’t want to leave because “*I paid so much for this stupid movie,*” then your behavior is:

- a. rational economic behavior, because you want to “get what you paid for.”
- b. rational economic behavior, because you include “sunk cost” in your decision.
- c. irrational economic behavior, because you cannot ignore the ticket price. irrational economic behavior, because you cannot “get proper value for your money.”

 **Correct answer: c**

Why:

The ticket price is a **sunk cost** (already paid and unrecoverable).

The marginal principle says decisions should be based on **future costs and benefits**, not past costs.

Staying just because you have paid is irrational.

1.2.2. Renting out your House

A family is away from home for six months. The monthly mortgage payment is €600.

Renting out the house would cause wear and tear costing €150 per month; otherwise, there would be no extra cost.

You have to choose an economically sensible and good answer.

The best financial decision is to rent out the house if the rent exceeds:

- a. €0
- b. €150
- c. €600
- d. €750

✓ **Correct answer: b**

Why:

The €600 mortgage is a **fixed cost** (must be paid anyway).
The only relevant (marginal) cost is the **additional €150** from renting.
So rent should exceed €150 to be worthwhile.

1.2.3. Go or Not to Go

A consumer wants to buy an alarm clock for €20 from a local store. A friend says the same clock is available across town for €10.

The same consumer also wants to buy a home appliance for €2,510 locally, but it is available across town for €2,500 (assume delivery and service are identical).

If the consumer follows the marginal principle:

- a. they should drive across town for the alarm clock because it's a 50% discount.
- b. they should drive across town in both cases because saving €10 is always worth it.
- c. they should not drive because their time and effort are worth more than €10.
- d. we don't know whether they should drive in either case, but they should make the same decision in both cases.

✓ **Correct answer: d**

Why:

The marginal principle focuses on **absolute benefit vs cost**, not percentages.
In both cases, the gain is **€10**, and the cost (time, effort) is the same →
Therefore, the decision should be the **same in both cases**.

1.2.4. A Famous Concert and Stormy Weather

Suppose Maria wins a ticket to a very famous concert, and Eric buys a ticket for €60.

On game day, there is a snowstorm, making travel to the concert place 200 km away very risky. If Maria and Eric get the same marginal benefit from attending the game, then according to the marginal principle:

- a. both should stay home, because no concert is worth injury.
- b. Maria should stay home—she has nothing to lose. Eric should go because he paid for the ticket.
- c. they should make the same decision, because marginal benefit and marginal cost are equal for both.
- d. Maria should go because she has lower total costs than Eric.

✓ **Correct answer: c**

Why:

The ticket price (for Eric) is a **sunk cost**.

Both face the same **marginal cost (risk of travel)** and same **marginal benefit (enjoyment)**.

So both should make the **same decision**.

Summary Insight (for students)

The **marginal principle** means:

👉 *Ignore sunk costs and focus only on additional (marginal) costs and benefits when making decisions.*

1.3 Funny puzzles for teaching financial literacy

1.3.1. Cutting a Cake

One large piece of cake is to be shared between Henry and his sister Henrietta. The two are squabbling over who gets to cut the cake. Each thinks the other will cut it so as to give himself or herself the larger portion. Dad let them argue for a while before he said, "May I make a suggestion? I'll show you how to decide the matter so both of you will be completely satisfied with your share." When Henry and Henrietta heard Dad's clever scheme, they agreed it would work. What did Dad suggest?

Source: Perplexing Puzzles and Tantalizing Teasers, ISBN 9780486256375

Solution:

There is a simple procedure by which two people can divide a cake so that each is satisfied he has at least half: One cuts and the other chooses. Devise a general procedure so that n persons can cut a cake into n portions in such a way that everyone is satisfied he has at least $1/n$ of the cake.

Source: My Best Mathematical and Logic Puzzles, ISBN 9780486281520

https://en.wikipedia.org/wiki/Fair_cake-cutting

1.3.2. Buying a ring

A woman buys a £100 ring from a jeweler, and just as she is about to leave the shop she pauses and returns to the counter.

Woman: I'm not happy with this ring. Can I exchange it for that £200 one there?

Jeweler: Certainly, madam (handing it over to her.) *That will be another £100, please.

Woman: Excuse me, but I don't owe you anything. I handed over £100 just now, and on top of that I've just handed you a ring worth £100. That's £200 altogether.

And with that she storms out of the shop clutching the £200 ring, leaving the jeweller to ponder where he went wrong.

Source: How Long Is a Piece of String?, ISBN: 978-1-86105-625-2

Solution: There are two different purchases: 1. A ring for £100. It was returned and money had to be given back. So the balance is 0:0. 2. A new ring was bought for £ 200. But the lady changed the £100 ring for a £200 ring without adding anything.

1.3.3. Predicting the sex of your baby

Idea: Conman predicts a sex of an unborn baby for 100 euros. If the prediction is incorrect you get your money back and a 50 euro compensation.

If you find customers it is basically free money.

Source: How Long Is a Piece of String?, ISBN: 978-1-86105-625-2

Explanation: The conman is playing a pure game of probability with a 50/50 outcome (boy or girl). Let's look at what happens if they take 100 pregnant customers:

- Statistically: Around 50 babies will be boys, and 50 will be girls.
- The Predictions: The conman randomly tells 50 parents it's a boy, and 50 parents it's a girl.

The Financial Outcome:

- 50 Incorrect Predictions: The conman has to give back the €100 deposit and pay the €50 compensation. *Loss:* $€50 \times 50 = €2,500$
- 50 Correct Predictions: The conman keeps the €100 deposit. *Gain:* $€50 \times 100 = €5,000$
Net Profit: $€5,000$ (kept) - $€2,500$ (paid out) = $€2,500$ pure profit.

1.3.4. The famous restaurant

Three men in a restaurant are presented with a bill for £25. They give the waiter £30, in £10 notes, and he returns with £5 in loose change.

The men take £3. and leave £2 as a tip. The men have now each paid out £9, making £27 in total. The waiter has a £2 tip. $£27 + £2 = £29$. But the men gave the waiter £30, so £1 is missing. Who is conning whom?

Source: How Long Is a Piece of String?, ISBN: 978-1-86105-625-2

Solution: The riddle states: **£27 (paid by men) + £2 (tip) = £29.**

This makes no sense because the £2 tip is **already included** in the £27 they paid ($£25 + £2 = £27$). Adding it again is a mathematical error. Instead, you should add the £3 they kept to the £27 they spent, which brings you back to the original £30.

Conclusion: Nobody is conning anyone—the riddle is just conning your brain with bad math!

1.3.5. The Missing Euro

You find a jacket in a store that costs 97 euros. You borrow 50 euros from your mom and 50 euros from your dad to buy it. $50 + 50 = 100$ You give the seller 100 euros and get 3 euros back. You give 1 euro back to your mom and 1 euro to your dad. You now owe your dad 49 euros and your mom 49 euros. You have 1 euro left for yourself. $49 + 49 + 1 = 99$ Where did 1 euro go?

Solution: You cannot add loans to assets.

1.3.6. The Three Tourists

Three tourists check into a hotel room. The receptionist says the bill is €30, so each guest pays €10. Later, the receptionist realizes the bill should have only been €25. To refund the difference, she gives the bellboy €5 to return to the guests. The bellboy realizes he can't divide the money equally. Since the guests don't know the new total, the bellboy decides to give each guest €1 back and pockets €2 for himself. Each guest gets €1 back. So, each person has only paid €9, and the total is €27. The bellboy got €2. But $27 + 2 = 29$. If the guests originally paid €30, where did the 1 euro go?

Explanation: The riddle tricks you by saying: **€27 (paid by guests) + €2 (bellboy took) = €29.** This is a mathematical error. The €2 the bellboy took is **already inside** the €27 that the guests paid ($€25 + €2 = €27$).

Adding the €2 a second time makes no sense. Instead, you should add the €3 they received as a refund to the €27 they spent, which brings you back to the original €30 ($27 + 3 = 30$).

In short: The €1 isn't missing. The riddle simply adds the bellboy's €2 when it should subtract it to match the €25 room rate ($27 - 2 = 25$).

1.3.7. Horse trading

A farmer bought a horse for €600. After a while, he got tired of it and sold it to his neighbor for €700. A year later, he realized he needed the horse again and bought it back from the neighbor for €800. After some time, he felt the horse had grown too old and sold it at the market for €900.

Did the farmer end up with a profit (+) or a loss (–) as a result of these transactions, and by how much?

The catch: The class/group must come to a single, unanimous answer. While the math itself is simple, the real challenge lies in the group dynamics and decision-making processes.

Solution: Costs: $€600 + €800 = €1400$

Income: $€700 + €900 = €1600$

Profit: $€1600 - €1400 = €200$

1.3.8. Debt-Free!

Discuss with students: How is it possible without no value creation:

It is an autumn day in a small provincial town. The rain is pouring down, and the town appears deserted. Times are tough, and everyone is in debt to everyone else.

Suddenly, a wealthy tourist arrives. He walks into the town's only hotel, hands a €100 bill to the hotelier, and goes upstairs to choose a room.

The hotelier grabs the banknote and runs to the merchant to settle his debt.

The merchant is overjoyed, takes the money, and rushes to pay what he owes the baker. The baker dashes off with the bill to pay the miller. The miller rushes to settle his debt with the massage therapist, who, in turn, goes straight to the hotelier to pay for the rooms she had rented.

The tourist comes back downstairs, announces that none of the rooms suit him, takes his money back, and leaves town.

No one earned a single cent, yet the entire town is now debt-free and looking toward the future with optimism.

Explanation: This classic riddle is a perfect illustration of liquidity and the velocity of money. The reason this is possible without creating new physical value (like manufacturing a product) is that the value—the **credit**—was already created in the past when the debts were first made. The town wasn't missing wealth; it was missing **liquidity** (actual cash to move the wealth around).

Here is the breakdown of why this works:

The town was stuck in a perfect circle of debt. Everyone owed €100, and everyone was owed €100.

If you add up the net worth of the town before the tourist arrived, it looked like this:

- **Hotelier:** +€100 (from therapist) – €100 (to merchant) = **€0**
- **Merchant:** +€100 (from hotelier) – €100 (to baker) = **€0**
- **Baker:** +€100 (from merchant) – €100 (to miller) = **€0**
- **Miller:** +€100 (from baker) – €100 (to therapist) = **€0**
- **Therapist:** +€100 (from miller) – €100 (to hotelier) = **€0**

The town's net debt was actually **zero**.

1.3.9. Photo Shop

Read the situation aloud and write the main figures to the board. Then ask students to decide what their answer is. Write all the answers (there will be several of them) to the board and ask students to tell others how the result was calculated. The last to explain is the one (ones) who has (have) the right answer.

A customer enters a photo shop early in the morning and wants to buy a camera which price is 75 euros. The shop owner has bought the camera from wholesaler for 40 euros. The customer gives a banknote of 100 euros. The shop owner does not have small change and he takes the banknote of 100 euros and goes to a neighbouring flower shop for exchange. He is back in a couple of minutes, gives the customer the wished camera and 25 euros. The customer leaves the shop. In an hour a flower shop lady comes to the photo shop and announces that the banknote of 100 euros is forgery, false money. The photo shop owner gives her 100 euros.

How big is the loss or profit of the photo shop from these deals?

Solution: the photo shop owner suffers a total net loss of €65.

Follow the Cash and Goods (The Easiest Way). Forget about the neighbour's shop for a moment. The neighbour gave the photo shop owner €100 in real change, and later took €100 in real cash back. Their interaction was a net zero deal.

So, we only need to look at what the photo shop owner gave to the scammer:

- He gave the scammer a camera (which cost him €40 wholesale).
- He gave the scammer €25 in real change.
- Total real assets given away: $40 + 25 = €65$

Since the scammer gave him €0 of real value in return, the owner's total loss is €65.

1.3.10 The Camel Race

Two Bedouins met in the desert, and fell into an argument over their camels, each claiming that his was the slowest, “stubbornest”, most useless camel in all of Arabia. The argument ended in a bet. They agreed to race to the oasis, two miles away, whichever camel arrived last would be proved slowest, and his owner would win the bet.

They got on their camels, and set off slowly toward the oasis. More slowly, still more slowly. After a while, it became clear that since each Bedouin was trying to win the bet, they were never going to make it to the oasis.

After a while, a wise sheik rode up on a donkey and asked them why they and their camels were standing still, in the middle of the desert, on a hot day, with the oasis less than two miles away.

They got off their camels, and all three sat down in the shade of a rock while the two Bedouins explained about their bet.

The wise sheik whispered two words to them. The Bedouins immediately jumped on the camels and rode off as fast as they could towards the oasis.

- **What were the 2 words?**

Answer: Change camels

2. BUDGETING

2.1. Case Study: Saving for a New Bicycle

Background

Martin is a 15-year-old student who lives with his family and attends secondary school. Every month, he receives **€50 in pocket money** from his parents. He uses this money for personal expenses such as snacks, entertainment, small purchases, and outings with friends.

Recently, Martin found a bicycle he would like to buy. The bicycle costs **€300** and would allow him to cycle to school, visit friends more easily, and participate in weekend cycling trips.

Martin currently has **€20 in savings** and wants to purchase the bicycle as soon as possible. However, he does not want to completely give up spending money on activities with his friends.

Martin's typical monthly spending

Expense Category	Amount per Month
Snacks and drinks	€15
Entertainment (movies, gaming, etc.)	€10
Social activities with friends	€15
Miscellaneous purchases	€5
Savings	€5
Total	€50

At his current saving rate of **€5 per month**, Martin realizes it will take a very long time to save enough money for the bicycle.

The Challenge

Martin wants to answer the following questions:

1. How long will it take to save €300 if he continues saving only €5 per month?
2. Which expenses could he reduce without giving up all of his leisure activities?
3. How much could he save each month if he reduced spending on snacks, entertainment, or social activities?
4. Could he reach his goal faster by earning additional money through part-time work or helping neighbors with small jobs?
5. What would be a realistic savings plan that balances both current enjoyment and future goals?

Additional Information

Martin's parents have offered an incentive:

- If Martin manages to save **€200 on his own**, they will contribute **€50** toward the bicycle.
- Martin may also have opportunities to earn approximately **€20–€30 per month** by helping neighbors with gardening, pet care, or other small tasks.

Decision Point

Martin needs to create a financial plan that will help him purchase the bicycle within a reasonable time frame while still maintaining a balanced lifestyle.

Should he:

- Reduce some of his current spending?
- Find ways to earn additional income?

- Combine both strategies?
- Set a monthly savings target?

Your task is to analyze Martin's situation and recommend the best plan for achieving his goal.

Possible solutions: Part 1: Answers to Martin's Challenges

1. How long will it take to save €300 if he continues saving only €5 per month?

- Martin has €20. He needs €280 more ($€300 - 20 = 280€$).
- At €5/month, it will take 56 months (4 years and 8 months). This is far too long for a 15-year-old wanting a bike "as soon as possible."

2. Which expenses could he reduce without giving up all of his leisure activities?

- Snacks and drinks (€15): He can easily cut this by bringing snacks/water from home.
- Entertainment (€10) & Social activities (€15): He shouldn't cut these completely to maintain his social life, but he can look for free or cheaper alternatives (e.g., streaming at home with friends instead of going to the cinema).
- *Miscellaneous* (€5) should be kept for unexpected school or personal needs.

3. How much could he save each month if he reduced spending on snacks, entertainment, or social activities?

- If he cuts snacks by half (saves €7.50), entertainment by half (saves €5), and socials by a third (saves €5), he instantly boosts his monthly allowance savings from €5 to €22.50 per month while still having €27.50 left to have fun.

4. Could he reach his goal faster by earning additional money through part-time work or helping neighbors?

- Yes, this is the fastest accelerator. Earning an extra €25 per month (the middle ground of the €20–€30 estimate) by doing small jobs completely changes his timeline without forcing him to live on a zero-fun budget.

5. What would be a realistic savings plan that balances both current enjoyment and future goals?

- The best approach is a Hybrid Strategy (combining slight budget cuts with extra income) while taking full advantage of his parents' incentive.

Part 2: The Recommended Strategy (The Hybrid Plan)

The best decision for Martin is to combine both cutting expenses and earning additional income. This allows him to hit his target quickly without becoming socially isolated.

The New Monthly Budget & Income Ledger

- Base Savings: €5 (Current)
- Budget Cuts: Save €10 by cutting snacks and expensive entertainment slightly.

- Side Income: Earn €25 by helping neighbors with gardening or pet care.
- Total Monthly Savings Potential: €40 per month

Part 3: The Timeline to the Bicycle

Thanks to the parents' incentive, Martin's target is much easier:

- Total Bike Cost: €300
- Parents' Contribution: €50 (unlocked when Martin hits €200 in total savings)
- Martin's Total Target: €250

1. Starting Line: Current Balance: €20.

Martin starts with his existing €20 in savings. He needs €230 more to reach his personal €250 target.

2. Months 1 to 4: Active Saving: Saving €40/month. Over the next 4 months, Martin sticks to his hybrid plan.

Savings accumulated = $4 \times €40 = €160$

New balance: $€20 + 160 = €180$

3. Month 5: Hitting the Milestone & Parent Bonus: Target Achieved!.

In month 5, Martin saves his final €40.

- His personal savings hit €220 (crossing the €200 milestone).
- His parents hand him the €50 incentive bonus.
- **Final Total:** $€220 + 50 = €270$. He can now buy the €300 bike and even has €20 left over for accessories!

Final Recommendation:

By choosing the **hybrid plan**, Martin shrinks his waiting time from nearly 5 years down to just 5 months. Most importantly, he still keeps €40 every month from his original pocket money to spend entirely on hanging out and enjoying life with his friends.

2.2. Personal Budget and Saving

Ask students to decide how to save their money in 10 months. They have to fulfill the Allowance column from the table. When they are ready with the first month, ask them to take one slip of paper with an unexpected event and see how much money they have now. And so every month.

YOUR PLAN AND UNEXPECTED EVENTS OF LIFE

You have set a goal to save 1000 euros by the end of the school year. You have 10 months to achieve this. You already have 420 euros. Your monthly allowance from parents is 70 euros.

The goal should be achievable, BUT Life has its own plans.

MONTH	ALLOWANCE	UNEXPECTED EVENT	Balance
START	420 EUR		420
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			
Month 7			
Month 8			
Month 9			
Month 10			
TOTAL			

CONCLUSIONS: Achievement of your goal? What happened?

WHY?

YOU GIVE A LOAN OF 10 EUROS TO YOUR FRIEND 😞
GRANDMA GIVES YOU 100 EUROS FOR THE START OF SCHOOL 😊
MOTHER ASKS FOR A LOAN OF 50 EUROS 😞
MOTHER PAYS BACK 30 EUROS OF THE BORROWED MONEY 😊

AT THE END-OF-SUMMER PARTY YOU SPEND AN ADDITIONAL 25 EUROS BESIDES OF TICKETS 😞
YOU FELL ILL – YOU BUY MEDICINE FOR YOUR OWN MONEY – SPEND 18 EUROS 😞
YOU WIN 25 EUROS IN THE LOTTERY 😊
YOU SAVE 180 EUROS FROM THE MONEY RECEIVED AS A BIRTHDAY PRESENT 😊
YOUR FRIEND PAYS BACK 10 EUROS BORROWED FROM YOU 😊
YOU AGREE TO STACK FIREWOOD IN YOUR ELDERLY NEIGHOUR’S SHED ON THE WEEKEND – AND EARN 20 EUROS 😊
YOU GIVE TWO TUTORING LESSONS IN MATH TO YOUR NEIGHBOUR BOY – EARN 15 EUROS 😊
YOU GO SHOPPING AND SPEND 32 EUROS FOR A NICE T-SHIRT 😞
YOUR CAT NEED ITS CAT’S NAILS TRIMMED AND IT IS YOUR TURN TO VISIT THE VET. YOU PAY 7 EUROS. 😞
YOU LOST YOUR KEY AND HAVE TO ORDER A NEW ONE FOR YOUR OWN MONEY – YOU PAY 25 EUROS 😞
YOU ACCEPT YOUR NEIGHBOURS’ OFFER TO WALK THEIR DOG DAILY A (7 DAYS). YOU EARN 35 EUROS 😊
YOU GO TO YOUR FRIENDS BIRTHDAY PARTY AND BUY THE GIFT FOR 25 EUROS 😞

YOU LOSE 10 EUROS FROM YOUR POCKET WHEN JOGGING. YOU HAVE PLANNED TO BUY FOOD AND DRINK FOR THIS MONEY. YOU GO HOME AND ORDER PIZZA AND COKE FOR 15 EUROS. 😞😞
FATHER GIVES YOU FOR EXCELLENT WORK EXTRA 20 EUROS 😊
YOU PICK MUSHROOMS IN THE FOREST AND RECEIVE 16 EUROS WHEN YOU SELL THEM 😊
YOUR LITTLE BROTHER ASKS FOR MONEY TO BUY ICE CREAM. YOU GIVE HIM 5 EUROS 😞
MOTHER PAYS BACK 20 EUROS OF THE BORROWED MONEY 😊
YOU GO OUT FOR A LUNCH WITH YOUR FRIENDS AND SPEND CARELESSLY 38 EUROS 😞
YOU OFFER A SNOW SHOVELING SERVICE AND COME AN AGREEMENT WITH ONE FAMILY ABOUT 5 TIMES OF SHOVELING. THE FEE PER TIME IS 10 EUROS 😊
OPTIMISTIC ABOUT FUTURE DIVIDENDS YOU HAVE BOUGHT 10 SHARES OF A GREEN ENERGY COMPANY. THE PRICE OF ONE SHARE IS 3 EUROS 😞😊
YOU PAY BACK 15 EUROS BORROWED FROM YOUR FRIEND 😞
PARENTS ARE ABLE TO GIVE YOU ONLY 30 EUROS AS AN ANNLOWANCE THIS MONTH 😞
PARENTS ARE NOT ABLE TO GIVE YOU ANY ALLOWANCE THIS MONTH 😞
YOU BUY LOTTERY TICKETS FOR 20 EUROS AND WIN NOTHING 😞
GREEN ENERGY COMPANY PAYS YOU 23 EUROS AS DIVIDENDS 😊

2.3. Family Budget

Ask students to work in small groups. Each group has to draw a budget for a family consisting of four people, 2 adults and 2 children. Each team draws two slips with parents' occupations on them, and two slips describing the family's children. Based on this, they will describe where the family lives, what is their monthly income (depending on their occupations) and create an average monthly budget for the year. Students are allowed to use Google to find out as salaries as costs. When they have finished, they make a presentation explain their costs. The facilitator writes on the board the main costs (food, accommodation, transportation, clothing for comparing the costs and their share from the whole budget. After presentations they take one unexpected event card and tell others how they are going to change their budget.

Adults

Sole entrepreneur	Car repair worker	Owner of a start-up	Teacher	Dentist
Surgeon	Shop assistant	Clothing store manager	Bus driver	IT specialist
Cleaning person	Bank teller	Insurance sales person	Youth worker	Librarian
Policeman	Notary	Long-term unemployed	Builder	Electrician
Secretary	Pharmacist	Dressmaker	Long-distance lorry driver	Disabled pensioner in working age

Auditor	Assembly line worker	Retired person	Person in pension age but still working	Education officer
Sawmill owner, entrepreneur	Financial manager in a big company	Construction entrepreneur	Lawyer	Actor
Vice Chancellor	Euro official	Interpreter	Hairdresser	Restoran owner

Children

2 years old normal child in a kindergarten	3 years old normal child in a private childcare	4 years old normal child in a kindergarten	A five-year-old with a disability who uses a wheelchair	A 6-year-old with epilepsy, requiring constant care
17-year-old upper secondary student, orders something new from AliExpress every week	Lower secondary school graduate, preparing for entrance competition into a good gymnasium	10 years old girl, going in for competitive ball-dancing at international level	12 years old student studying in one of the most popular school	14 years old child, active in horse riding and learns French at hobby courses
13-year-old child, has -10 eyeglasses	7 years old child, just starting his school-life	15 years old vocational school students (learning cooking)	15 years old problematic young person, does not study or work	16 years old criminal in a prison

9-year-old well-balanced child	17-year-old boy works as a sales assistant in a cheap supermarket	17-year-old adult gymnasium student, does not work, hangs out with friends and goes to clubs	The first year university student, lives in a student hostel, does not work	19-year- old student of a private school for becoming an make-up artist, does not work
17-year-old silent introvert, does not go in for sports, spends every free minute in internet	17-year-old member of youth basketball team, an excellent student	17-year-old student, secret cannabis user	20-year-old student, novice influencer	13-year-old model airplane enthusiast
A talented young person with serious teenager problems	16-year-old young person interested in culture	18-year-old vegan and animal protector	18-year-old youth, focused on success, wants to go to study in UK	18-year-old active member of a political youth organisation
11-year-old helpful child	5-year-old child with mild autism symptoms, does not communicate with others	10-year-old child with considerable artistic talent	16-year-old youth with some symptoms of depression	16-year-old computer addicted youth
15-year-old child of nature	6-year-old hyperactive child	7-year-old musically talented child	16-year-old super smart in science	14-year-old precocious youth

Unexpected events				
Claim for theft	The whole family stays home because of an epidemic for 2 weeks	Fall ill and are absent from work for 4 month.	Disability, resulting in 50% of incapacity for work	Fired from work
Layoff from the job	Lottery jackpot in the amount of 2 million EUR	Property stolen from home worth 2000 EUR, door locks and 3 window panes need replacement	A water pipe burst	Eyeglasses broke, need new ones
You have to put your Grandma in a nursing home	Grandma's funerals	Home stay for a week for a child's guest	You inherit a house in good suburb and a bank loan of 200,000 EUR	You inherit a 3-room flat in the town centre without any liabilities
You are guilty in a car crash, have an obligatory insurance but no casco. Car repair costs 2000 EUR	TV Show award 30 000 euros	Friend asks a loan of 3000 euros	Your child's class decides to go to a trip to Vienna	Washing machine broke
Mother broke a front tooth	Older child stole 500 euros from home	Child won 300 EUR on an invention competition	Bank demands 20000 EUR from you as a loan guarantor of the loan	Salary raise of 800 EUR

2.4. Research Visit to Stores

A. Price comparison in two stores

Checklist and tasks	Observations Shop.....	Observations Shop.....
1) Compare the prices of goods in two stores. Try to choose goods from the same producer and take into account the prices per kilo. Write the producer and price per kilo in the table	Butter _____ €/kg Bread _____ €/kg Sausages _____ €/kg Banana _____ €/kg Chocolate _____ €/kg	_____ €/kg _____ €/kg _____ €/kg _____ €/kg _____ €/kg
2) Follow the special offers in the shops. Choose one product. What is its price in another store?	Product _____ Price _____	Product _____ Price _____
3) Compare the price of one and the same item for a large quantity and a small amount of packaging.	Item Price: large pack small pack € _____ _____	Item Price: large pack small pack € _____ _____
AMOUNT €		

In which store can you buy cheaper? _____ Price win _____ €

When comparing prices, it is worth remembering:

- The most expensive may not be the best.
- Goods from different manufacturers may have approximately the same price, but different weight
- Large packages seem more useful to the buyer, however, this is only if you can either store them for a longer time or really use them to the end.
- "Nameless" products are often not inferior of brand products but are much cheaper.

What did I learn from the price comparison and what do I consider when I go shopping in the future?

.....

.....

B. Buyer traps

In order for you to spend more time in the store and buy more, so-called buyer's traps have been designed.

Notice the use of the buyer traps listed below in the supermarket. Which ones did you notice? Mark with a cross. Add examples of products found.

BUYER TRAPS	X	Examples
Store name		
Soft music and flattering offers from loudspeakers are a trick that will influence you to stay in the store longer and buy more than you had originally planned.		
So-called sorting baskets have been thoughtfully placed, where regular-priced goods are often piled up. If anything is discounted there, it's mostly things left in the store that you want to get rid of. Sorting baskets are stopwatches that prevent the buyer from walking quickly.		
Expensive products are placed at eye level on the shelves and can be picked up easily, while in order to receive more affordable goods, you need to bend down deeply or stretch up yourself.		
Attempts have been made to take advantage of the usual turn of the right hand in such a way that expensive products are placed on the shelf to the right of the entrance. However, the goods at the very bottom left are often much more interesting!		
The checkout queue can sometimes be pretty long. Temptations - ice cream, chocolate, etc. - help to fill the waiting time. Being in the store with children, it is very difficult to resist such a "whining item".		
The packaging is also intended as a lure for purchases. The price of packaging, of course, is included in the price of the product, and many packaging causes waste problems.		
If there is little content inside a well-sized package, it is a fraudulent package. It is difficult for the consumer to estimate the ratio of the filling volume to the packaging if, for example, the bottle has thick walls or the yoghurt packaging has a curved bottom, but the exact details of the contents (filling volume) are only indicated on the label.		
The most frequently needed goods - food and household products - are distributed throughout the store. In this way, the buyer will have to go through the entire store, and on this journey there will definitely be a desire to buy something less important.		
The possibility of fraud is also a hidden price increase. So, for example, butter manufacturers decided to sell 20g less butter instead of the former 200g in the same package. The buyer will not be able to catch such a trick, so always pay attention to the label on the package! Also compare coffee, sour cream %, etc.!		

My conclusion on the use of buyer traps in stores:

.....

.....

What do I consider when I go shopping in the future?

.....

.....

.....

2.5. The Green & Wealthy Household Audit

Duration: 25–30 minutes

Target Group: Secondary school students

Focus: Linking everyday sustainability choices to personal budgeting and opportunity costs

Step 1: Introduction & Task Setup (5 minutes)

Divide students into small groups (3–4 participants). Introduce the core concept: *Every green decision you make has a direct impact on your wallet—and every euro you save gives you more future options.*

Instruct each team that their goal is to make **three key household decisions** that balance their monthly budget with their environmental footprint. They live out of the city, so they have to pay for public transportation.

Step 2: The Green-Budget Matrix (12–15 minutes)

Give each group the following choices. They must calculate their monthly spending, their CO_2 impact, and discuss the trade-offs.

- **Decision 1: Transportation**

- *Option A:* Monthly public transport pass (€30/month | 15 kg CO_2)
- *Option B:* Used bicycle + maintenance fund (€10/month | 0 kg CO_2)
- *Option C:* Shared rides via car-hailing services (€90/month | 80 kg CO_2)

- **Decision 2: Grocery & Meal Planning**
 - *Option A:* Pre-packaged ready meals & imported goods (€250/month | High food waste & packaging)
 - *Option B:* Bulk buying, local produce, cook-at-home plan (€150/month | Minimal packaging & waste)
 - *Option C:* Organic-only specialty delivery (€320/month | Low packaging, high transport impact)
- **Decision 3: Electronics & Energy Use**
 - *Option A:* Buying new high-spec devices with standard grid energy (€50/month energy bill + high upfront cost)
 - *Option B:* Refurbished electronics, smart-plug tracking, green energy supplier (€30/month energy bill)
- **Group Task:**
 1. Pick one option for each decision.
 2. Calculate total monthly costs and write down 2 savings options.
 3. Calculate the "Green Dividend": How much money did the most eco-friendly combination save compared to the most expensive one?
 4. Write down what investment or saving goal (e.g., emergency fund, index fund) that saved money could be directed toward over 1 year.

Step 3: Group Debrief & Discussion Points (8–10 minutes)

Bring the whole room together. Ask 2–3 groups to share their totals and answer these quick reflection prompts:

- **Opportunity Cost:** What are you giving up (in time, comfort, or convenience) by choosing the greenest option? Is that trade-off worth the financial savings?
- **Upfront vs. Long-Term Costs:** Why do people often choose the less sustainable option even if it costs more in the long run? (e.g., high upfront cost of a bicycle vs. pay-as-you-go rides).
- **Systemic Impact:** How does compound interest magnify the benefits of small, eco-friendly savings over 5–10 years?

2.6. From Bingo to Budget

2.6.1. Bingo

This activity is like ordinary Bingo game: student get tables with words about budgeting and if they hear the word that is on their table, they have to mark it and when one row, column or diagonal is marked, they shout BINGO. Who is the first to do it, is the winner.

Goal: to understand the terms what are used in budgeting. The game has to finish with explaining all the words.

Target group: all school levels. Explanation depends on the level

Income	Fixed expenses	Variable expenses	Savings	Emergency fund
Debt	Needs	Wants	Budget	Financial goal
Interest	Credit	Loan	Investment	Taxes
Rent	Utilities	Groceries	Transportation	Entertainment
Bank account	Cashflow	Expense tracking	Financial literacy	Paycheck

2.6.2. Needs and Wants

Goal: Make students understand what they really need and what they simply want. It is a basis for saving and fulfilling bigger goals.

Speak with students about the difference between Needs and Wants as **Needs** being essential items required for survival, like food, shelter, and clothing, and **Wants** - non-essential items that are nice to have, like entertainment or luxury goods.

Give them a list of various things and activities and ask them to divide them between Needs and Wants. With some objects the result for students can be different: using a car

for students living from some remote place can be a need, for others simply a wish not to walk – a want.

Groceries	New smartphone	Bus pass	Netflix subscription	School supplies
Designer clothes	Rent	Concert ticket	Gym membership	Emergency medicine
Coffee from café	Vacation	Internet access	Insurance	Haircut
Fast food	Textbooks	Laptop for school	Birthday gift	Public transport card
Streaming music service	Winter coat	Toothpaste	Manicure	Private tutoring
Headphones	Water bottle	Phone case	Weekend trip	Mobile data plan
Bicycle	Alarm clock	Snacks	Sunglasses	Subscription box
New backpack	Movie ticket	Electricity bill	Phone repair	First aid kit
School lunch	Hoodie	Museum ticket	Printer ink	Phone charger
Ice cream	Umbrella	Vitamins	Sports equipment	Pet food

2.6.3. Budgeting for Different Persons

Goal: to teach budgeting and make students understand that family situations and incomes are very different.

Target group: Secondary school students

This exercise describes four case studies for students to develop the most convenient budget for those people. Students work in small groups and it is possible to divide the cases between them and then ask them to present others, or to ask all groups to draw budgets for all cases and then compare the results with each other. Analysis is as important as budgeting here.

Case 1

Maria is a school teacher living with her teenage son. She earns **€1,800 per month** after taxes. She wants to save for a vacation and keep some money for hobbies and entertainment. She's looking for a balanced budgeting method that helps her divide her income wisely. Her monthly expenses include:

- Rent
- Utilities
- Groceries
- Public transport
- Phone and internet
- Occasional dining out
- Streaming subscriptions
- Savings for vacation
- Emergency fund

Case 2

Kevin and Laura are university students sharing a flat. They each earn **€600 per month** from part-time jobs. They often overspend on takeout and online shopping. They want to try a budgeting method that helps them control daily spending and stick to limits. Their monthly expenses include:

- Rent
- Groceries
- Transport
- Household supplies
- Cafés and takeout
- Online shopping
- Gym membership
- Occasional travel
- Savings for emergencies

✖ Case 3

Sandra is a recent graduate working her first full-time job. She earns **€2,200 per month**. She wants to assign every euro a purpose and track her spending closely to avoid waste. Her monthly expenses include:

- Rent
- Student loan payments
- Groceries
- Transport
- Health insurance
- Clothing
- Gifts and donations
- Entertainment
- Savings and investments

✖ Case 4

Rasmus is a freelance web developer. His income varies, but on average he earns **€2,500 per month**. He wants to prioritize saving and investing before spending on anything else. His monthly expenses include:

- Rent
- Business tools and software
- Groceries
- Transport
- Workspace rental
- Online courses
- Travel
- Investments
- Retirement savings

Budget of Case ____

Income:	€	Expenditures	€
Total:		Total:	

Budgeting methods for this exercise:

1

THE "50/30/20" METHOD

Who this is for
Those with a stable income but who aren't managing to set money aside.

WAGES

50% On basic monthly expenses (utility bills, food).

30% On less important but necessary things (digital TV, Internet, clothes).

20% For the future (savings, unforeseen expenses, presents, etc).

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2

THE "SIMPLE" METHOD

Who this is for
Those who don't want to have to strictly limit themselves.

Divide your budget into 2 parts: permanent expenses and everything else.

PERMANENT EXPENSES

The amount you spend on essentials (food, rent, etc).

EVERYTHING ELSE

All entertainment and purchases you could live without (cafes, restaurants, concerts, cinema, etc).

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3

THE "BASIC BUDGET" METHOD

Who this is for
Those without a steady income, and those who want to save.

Work out your minimum monthly budget. Count how much you spend on necessities.

The minimum budget for this month: \$300

All the money you get on top of this can go toward long-term aims.

Unexpected prizes

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4

THE "WEEKLY ALLOWANCE" METHOD

Who this is for
Those who unexpectedly run out of money several days before pay day, and those who want to save.

Work out how much of your monthly budget you want to spend and how much to save. Divide the first part into 4 weeks, and give yourself a weekly allowance that you can spend on whatever you want. Exceeding the monthly limit is forbidden.

WAGES

Expenses for week #1

Expenses for week #2

Expenses for week #3

Expenses for week #4

SAVINGS

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Tips and timing for a teacher:

1. Budget Bingo	10 min	10
2. Needs & Wants	10 min	20
3. 4 groups, each get a case and create the budget for it	15 min	35
4. 4 methods to create the budget.	5 min	40
5. Discuss in your group: 1. What methods suits more for your case? 2. Did you use this method? 3. If not, why?	5 min	45
6. How could you change the budget, if you like to use other suitable method?	5 min	50
7. Tell us about your experience with this case (questions you discussed in your group)	8 min	58
8. Was it difficult or easy for you? Why? 9. Was it useful to play Budget Bingo before Budget Cases? 10. Was it useful to do Wants and needs before Budget Cases? 11. Does it make sense to introduce to students different methods to create the budget?	12 min	70

3. DEBTS AND LOANS**3.1. Simulation: “Debt or Opportunity?”****Objective**

Understand the difference between good and bad debt and see how borrowing costs (interest and fees) affect your daily budget.

Step 1. Preparation (5 min)

Divide the class into groups of 4. Each group starts with the following situation:

- **Income:** €1200 (after taxes)
- **Fixed expenses (rent, food, transport):** €800
- **Money left over:** €400

Step 2. Game Flow: “Three Choices”

Present students with three scenarios. Each group must choose one option.

Scenario A: “New phone right now!”

Your phone broke. You need a new one.

- **Choice:** Take a €1000 installment loan
- **Terms:** 24 months, 20% interest, €50 contract fee
- **Result:** Monthly payment is about €55

Scenario B: “Investing in the future – Driving license”

You realize that a better-paying job requires a driver’s license.

- **Choice:** Driving school loan €800
- **Terms:** 12 months, 8% interest, €20 contract fee
- **Result:** Monthly payment is about €70
(But after 6 months, your salary increases by +€150 thanks to the license.)

Scenario C: “Saving (and sacrificing)”

You decide not to take a loan.

- **Choice:** Use your old, unreliable button phone and walk everywhere
- **Result:** €0 in payments, but you lose time and convenience and are often “offline”

Step 3. “Life Happens” (Random Event)

After groups have made their choices, present an unexpected event:

“Car repair or unexpected dentist bill: -€300 this month!”

Now let the groups calculate:

1. How much money do they have left after fixed costs, loan payments, and the unexpected expense?
2. **Group A:**
 $(€400 - €55 - €300) = \text{€45 left}$ for the rest of the month
3. **Group B:**
 $(€400 - €70 - €300) = \text{€30 left}$
(But they have future income growth!)
4. **Group C:**
 $(€400 - €0 - €300) = \text{€100 left}$
(Safest position, but less comfort)

Step 4. Discussion: “Moment of Truth”

Ask the groups:

- Who felt the most uncomfortable?
(Usually those who took the expensive installment loan and were left with very little after the unexpected expense.)
- What is APR? (Annual Percentage Rate)
Explain that Group A’s “cheap” 20% interest is actually much more expensive when fees are included.
- **Good vs bad debt:**
 - Group B’s loan was “good” because it increases future income
 - Group A’s loan was “bad” because the phone loses value and the interest is very high

Step 4. Discussion: What do students learn from this?

1. **Debt burden:** Every loan reduces your future freedom (e.g., €55 less every month).
2. **Importance of APR:** “0% interest” offers may hide large fees.
3. **Emergency fund:** If they had savings, the unexpected €300 expense would not have been a problem.

3.2. The Loan Shark vs. The Safe Bank (Simulation about interests and hidden costs)

Objective: Teach students how to compare loan offers, calculate the real cost of debt, and spot predatory lending (hidden costs and payday loans (SMS loans)).

Instructions for the Teacher:

1. Divide the class into groups of 3–4. Each group represents a young adult who needs a **€1 000 loan** for an emergency (e.g., fixing a car needed for work or buying a laptop for school).
2. Distribute three different **Loan Offer Cards** to each group (see below).
3. Teams must calculate the total amount they will pay back and choose the best option.

Student Handout:

The Emergency Loan Challenge

Your team needs a **€1 000 loan** immediately. You have three offers on the table. Calculate the **Total Repayment Amount** for each and decide which loan you will take.

Formula to help you: € Total Repayment} = Monthly Payment X times (Number of Months)€

Offer A: "The Quick & Easy Cash" (Payday Lender)

- **No credit check required!** You get the cash instantly.
- **Terms:** You pay back **€120 every week for 10 weeks**.
- *Calculate the total cost:* _____

Offer B: "The Student Special" (Traditional Bank)

- **Low interest, but has a one-time processing fee.**
- **Terms:** €95 per month for 12 months + a €50 sign-up fee.
- *Calculate the total cost:* _____

Offer C: "The Peer-to-Peer Loan"

- **Terms:** 10% annual interest rate. You pay back the €1,000 principal plus 10% interest at the end of exactly 1 year.
- *Calculate the total cost:* _____

3.3 Leverage or Liability? (Simulation about entrepreneurship and investing)

Objective: Learn the difference between "good debt" (investing in the future) and "bad debt" (consuming things that lose value).

Instructions for the Teacher:

1. *Divide students into pairs. Each pair is a start-up company or a young professional at age 19.*

They are given the opportunity to get a loan of 10 000 € for € 500 interest cost.

2. They must choose *how* to invest the borrowed money from a list of scenarios.

Student Handout:

Good Debt vs. Bad Debt Challenge

You have been approved for a **€10,000 loan for two years**. The total cost to pay it back (including interest) is **€10,500**. You must invest this money into *one* of the following options. Choose wisely to maximize your net worth after 1 year.

Scenario A: The Coding Bootcamp (Education)

You spend €10,000 on a high-intensity programming course.

- *Result:* After 1 year, you land a part-time tech job that pays you **€1500 per month**.

Scenario B: The Crypto Hype (Speculation)

You invest €10,000 into a trending cryptocurrency you saw on TikTok.

- *Result:* The market crashes. Your investment is now worth **€2,000**.

Scenario C: The E-Commerce Store (Business)

You use the €10,000 to buy inventory and market your online clothing brand.

- *Result:* The business is a success! You make **€12,000** in profit.

Scenario D: The Dream Vacation & Car Upgrades (Consumption)

You spend the money on an amazing trip to Bali and modify your car.

- *Result:* You had great memories, but financial return is **€0**. Your car is worth the same.

Calculate your Return on Investment:

€ Net Profit/Loss = Result - €10,500 (Loan Repayment)

- Your Net Profit/Loss for your chosen scenario: _____

Discussion: Which scenarios represent "Good Debt" (assets that grow or earn money) and which represent "Bad Debt"?

3.4. SMS LOAN EXERCISE

Maria discovered a coat in a shop that was discounted by 20% and now cost 200 euros.

Since she did not have the money, she took out an SMS loan (quick loan) for 1 month until payday to make the purchase, with an interest rate of 35% for the period.

At the end of the month, Maria did not have the money and told her father that she would wait another month before paying it back. However, this would have added a late payment penalty (fine) of 1% per day to the interest.

Her father paid off Maria's debt. Did the family end up with a profit or a loss by taking out a loan to buy the discounted item, and by how much? How much would Maria have had to pay back if she had extended the loan?

Ask the teams to make these calculations.

SOLUTION: (Mathematical analysis)

The Original Price of the Coat:

The coat is discounted by 20% and now costs €200. Let X be the original price:

$$0.80 * X = 200 \quad X = 200 / 0.80 \quad X = €250$$

$$\text{The discount saved Maria: } 250 - 200 = €50$$

The Cost of the First Month:

Maria borrows €200 for 1 month at a 35% interest rate.

$$\text{Interest for Month 1} = 200 * 0.35 = €70$$

$$\text{Total Debt Paid by Father} = 200 + 70 = €270$$

The family ended up with a loss.

Compared to the original price: The family suffered a loss of €20 ($270 - 250 = 20$). The €70 loan interest completely wiped out the €50 discount savings and cost them an extra €20.

Compared to the sales price: The family suffered a loss of €70 ($270 - 200 = 70$), which is the exact amount paid purely in loan interest.

Extending the loan for another month (assuming a standard 30 days) adds a late penalty fine of 1% per day ($1 * 30 \text{ days} = 30$).

If the 35% monthly interest continues and the 30% late penalty is applied to the base principal (€200):

$$\text{Month 2 Interest: } 200 * 35\% = €70$$

$$\text{Late Penalty: } 200 * 30\% = €60$$

$$\text{Total to pay back: } 270 + 70 + 60 = €400$$

4. INSURANCE

4.1. Educational Game: “Twists and Turns of Life”

Objective: Manage your budget so that unexpected events do not lead to bankruptcy.

Target group: Upper secondary school (Grades 10–12)

Duration: 45–60 minutes

1. Preparation (10 minutes)

Divide the class into groups of 3–4 students (households).

Each group receives:

- **Starting capital:** €5000 (virtual money)
- **List of assets:**
 - Home (value €150,000)
 - Car (€15,000)
 - Smart devices (€2000)
 - Health (irreplaceable)
 - Electronic devices ((€2000)
- **Insurance offer sheet:** A table with different policies and monthly costs

2. Insurance market (10 minutes)

Groups must decide which insurance policies to buy. They may choose all, none, or some.

Type of Insurance	Payment	Deductible	Coverage
Coprehensive car insurance (kasko)	30 €	200 €	Repairs to your car (even if it's your fault)
Motor liability insurance	50 € (Mandatory!)	0 €	Damage caused to others.
Home insurance	80 €	300 €	Fire, water damage, theft, damage to neighbors
Travel insurance	30 €	50 €	Health issues abroad, trip cancellation

Type of Insurance	Payment	Deductible	Coverage
Accident insurance	40 €	0 €	Injuries, loss of ability to work
Electronic devices	20 €	40	Theft, water damage, drops

3. Game Flow: “Wheel of Fortune” (25 minutes)

The teacher (or game leader) draws events. The game lasts 6 “months.”

At the beginning of each month, groups pay insurance premiums, and then an event is drawn. Travel plans should be announced in advance (e.g., every second month, every month, etc.). Before each round, fill in the monthly payments table.

EVENTS

Event A:

“You drove off the road due to icy conditions. Car repair costs €4000.”

. Event B:

“The washing machine hose burst. Your floor and your downstairs neighbor’s ceiling are damaged. Total damage €6000.”

Event C:

“You go skiing during school holidays and break your leg. Hospital bill €1500.”

Event D:

“The month passed peacefully. Nothing happened.”

Event E:

“Someone scratched your car in a parking lot and drove away. Damage €1200.

Event F:

“Your apartment was burglarized and devices worth €1800 were stolen.”

Event G:

“You missed your flight due to a railway strike. Loss €600.”

Event H:

“You caused a traffic accident. Damage to the other car €5000.”

Event I:

“A severe storm damaged your roof. Total damage €7000.”

Event J:

“You slipped on ice and injured your arm. Treatment costs €800.”

Event K:

“Your phone falls into water and becomes unusable. Damage €900.”

Event L:

“It’s been a great month – you receive an unexpected bonus of +€500.”

- Everyone: Add +€500 to your budget.

Before each event, fill in the monthly payments column!

4. Summary and Analysis (10 minutes)

The winning group is the one with the most money left at the end of the game.

Discussion points:

- Who benefited from insurance? Who lost money by “paying for nothing”?
- What is a deductible, and how does it affect insurance premiums?
- Why is motor liability insurance mandatory by law, but kasko is optional?

**Tip for the Teacher**

You can add a “fraud element” to the game:

If someone tries to hide damages or lie, they receive a penalty (insurance fraud).

This teaches insurance ethics.

4.2. Educational Game “To Buy or Not to Buy (an Insurance)”

Setup:

- **Starting Balance:** 3000 € in savings.
- **Income:** 1500 € at the end of every round (year).
- **The Player's Assets:** They own a 3000 € used car, 500 € bicycle, and an 800 € smartphone. They rent an apartment.
- **Note on Car Insurance:** Basic traffic insurance (by Estonian law) is mandatory by law, so it is assumed it is already paid. The marketplace below only features optional extra insurances.

Phase 1

Students choose which optional policies to buy for the upcoming year.

Policy type (Optional)	Yearly insurance cost	Deductible	What it covers
Kasko insurance for the car	250 €	200 €	Damage to your own car (e.g., sliding on an icy road, hitting a wild animal).
Home/Lability insurance	100 €	100 €	Stolen belongings (like your bicycle) AND liability if you cause damage to neighbours.
Tech/Device insurance	120 €	50 €	Dropped phones, spilled coffee on laptops.

Phase 2

“Life happens” – students will roll two 6-sided dice.

Dice Roll (Sum of 2 dice)	The Event	Out-of-Pocket Cost (Without Insurance)
Roll 5, 6, 7, or 8	Peaceful Year: Nothing happens! Go enjoy a walk in the bog.	0 €
Roll 4 or 9	Tech Drop: You dropped your phone on the cobblestones in Old Town.	300 € (or 50 € with Tech Insurance)

Roll 10	Stolen Bike: Your locked bicycle is stolen from the apartment stairwell.	500 € (or 00 € with Home Insurance)
Roll 3	Black Ice: You slide off a snowy country road into a ditch.	2000 € (or 200 € with Kasko)
Roll 2, 11, or 12	The Flood: Your washing machine breaks and completely floods your downstairs neighbour's newly renovated apartment!	5000 € (or 100 € with Home Insurance)

The Crucial Debrief: When is insurance a BAD idea?

Because you want to teach students that insurance isn't always the right answer, focus the post-game discussion on the Tech Insurance. This is the trap many young people fall into. Walk students through the math on the whiteboard:

- The Tech Insurance Trap: The device insurance costs 120 € a year. Over the 5 years of the game, a student who buys it every round spends 600 € just in Insurance cost.
- The Reality Check: If they drop their phone once (a 300 € repair), they actually lost 300 € by buying the insurance (600 € in Insurance cost + 50 € deductible = 650 € total spent, versus just paying the 300 € repair out of pocket).
- The Core Lesson: Teach them about Self-Insurance. If an emergency won't bankrupt you (like a 300 € screen repair), you should not buy insurance for it. Instead, put that 120 €/year into an emergency savings account. If the phone breaks, you pay for it yourself. If it doesn't, you get to keep the money!

Every person has their own limit, how big risks they are willing to take, but golden rule for insurance is to protect yourself against financial catastrophes that you cannot afford to pay out of pocket.

5. INVESTING

5.1. Investment Merry Go Round: 30 Years in 30 Minutes

1. Preparation (5 min)

Divide the class into groups of 3–4 students. Each group is an “Investment Company.” Give each group €10,000 in virtual money and a table where they can record their decisions.

2. Asset Allocation (5 min)

On the board, there are four “buckets” where they can allocate their money.

They must decide what percentage to invest in each:

1. **Savings deposit:** Low return (2%), no risk.
2. **Global stock fund (ETF):** average return (8%), medium risk.
3. **Individual stock “Tech Tiger”:** High return (up to 50%), but can also lose half its value.
4. **Gold and Art:** Protection during crises, stable, but does not pay dividends.

3. Game Phases: “Decades”

The game consists of three rounds. In each round, you present a “world event,” and groups calculate their results (or you provide them with multipliers).

Round 1: “Economic Boom” (Years 1–10)

- **Event:** Technology is rapidly advancing, and everyone is buying smart devices.
- **Results:**
 - Savings: +10% (on total amount)
 - Stock fund: +50%
 - “Tech Tiger”: +200% (money triples!)
 - Gold: -10% (people are not afraid, so they don’t buy gold)

Groups calculate their new totals.

Round 2: “Major Crash” (Years 11–20)

- **Event:** A global energy crisis and pandemic break out. Markets panic.
- **Results:**
 - Savings: +5%
 - Stock fund: -30%
 - “Tech Tiger”: -80% (the company is near bankruptcy!)
 - Gold: +40% (everyone rushes to safe assets)

Groups calculate new totals. At this point, you will usually hear the first groans from those who invested everything in “Tech Tiger.”

Round 3: “Recovery and Inflation” (Years 21–30)

- **Event:** The economy recovers, but prices rise rapidly (inflation).
- **Results:**
 - Savings: -20% (purchasing power decreased because interest was lower than inflation)
 - Stock fund: +60%
 - “Tech Tiger”: +20% (slow recovery)
 - Gold: +10%

Final calculation.

4. Analysis and “Winner” (10 min)

The winning group is the one with the highest total after 30 years (minutes).

Discussion questions:

- Who won? Usually, the winner is the group that diversified (spread money across all options).
- How did the drop of “Tech Tiger” feel? Did you feel like selling everything (emotional investing)?
- Why did holding cash lose in the long run? (Inflation topic)

Bonus: “Teacher’s Joker Card”

If you want to make the game more exciting, at the end of Round 2 you can offer:

“Who wants to buy stocks now at half price (invest more cash into stocks)?”

This teaches that buying during a crash can be beneficial in the long term, even though it feels risky.

Investment Game Worksheet: "30 Years in 30 Minutes"

Team name: _____

Initial capital: 10 000 €

1. STEP: Build your portfolio (Allocate 10 000 €)

Decide at the beginning where to invest your money. The total must equal €10,000.

Asset type	Amount (€)	Why did you choose this share?
Savings (Cash)		
Stock Fund (ETF)		
"Techno-Tiger" (individual stock)		
Gold		
TOTAL:	10 000 €	

2. STEP: Game progress and results

Events begin. Calculate new amounts according to the multipliers.

Round / Period	Savings	ETF	"Techno-Tiger"	Gold	TOTAL PORTFOLIO
Start					10 000 €
Round 1					
Total after round 1					
Round 2					
Total after round 2.					
Round 3					
FINAL RESULTS					

INFORMATION FOR THE TEACHER ABOUT CALCULATIONS

2. STEP: Game progress and results

Teacher reads the events. Calculate new amounts according to the multipliers.

Round / Period	Savings	ETF	"Techno-Tiger"	Gold	TOTAL PORTFOLIO
Start					10 000 €
Round 1 (Growth)	x 1.10	x 1.50	x 3.00	x 0.90	
Total after round 1					
Round 2 (Market crash)	x 1.05	x 0.70	x 0.20	x 1.40	
Total after round 2					
Round 3 (Inflation)	x 0.80	x 1.60	x 1.20	x 1.10	
FINAL RESULTS					

5.2. Investment Debate: Stocks vs. Real Estate vs. Crypto

This develops critical thinking and argumentation skills.

- **Activity:** Divide the class into groups. Each group is assigned one asset class that they must "sell" to the rest of the class as the best long-term investment.
- **Analysis:** After the presentations, the other groups must raise objections (e.g., "But what happens if the real estate market crashes?" or "Crypto is too volatile").
- **Final Outcome:** The class votes (based on the strength of the arguments, not personal preference) on where they would invest their virtual €10,000.

5.3. "The Compound Interest Race" (A Mathematical Experiment)

This visually demonstrates the power of time and interest.

- **Activity:** Compare two persons:
 - **Person A:** Starts investing at age 18, contributes €100 a month for 10 years, and then stops making contributions but leaves the money to grow.
 - **Person B:** Starts at age 28, contributes €100 a month until retirement (for 40 years).
- **Task:** Students must guess who will have more money at age 65. Usually, they guess incorrectly, assuming that Character B wins because they saved for longer.
- **Calculation:** Use an online compound interest calculator together to see the victory of "time" over "amount."

6. FRAUD CALLS, E-MAILS, ADVERTISEMENTS, etc.

6.1. Teach your Grandmother

One opportunity for teaching students how to recognize fraud in internet and phone, is to prepare them for teaching their grandparents to understand what is what, as oldies are one of the most vulnerable group of fraud calls.

Explain them all the steps and then ask them to role play different situations.

Six Steps for Protecting your Grandmother

1. Start with a very simple principle

Explain it to her clearly:

“If something seems too good or too fast, it’s usually a scam.” (if they are asked to act ant once – be careful!)

Give 1–2 simple examples:

- “You’ve won a prize”
- “Your account will be closed immediately”

2. Teach the main types of scams

Explain only the most important ones:

- SMS or email with a link → “click here”
- A phone call “from the bank”
- A message from a familiar name (“Please lend me money”)

Say: “A bank or governmental institutions will NEVER ask for passwords or PIN codes.”

3. Show what to always check

Give her 3 golden rules:

- Who sent it? (does it seem right?)
- Is there urgency? (“ACT NOW!”)
- Are they asking for passwords or money?

If yes → do nothing

4. Teach one firm rule

This is the most important:

“If you’re unsure – don’t click, **don’t respond, ask me.**”

If needed, write this down for her on paper or in her phone notes.

5. Practice together

Make a small “game”:

- Show her a sample message
- Ask: “Is this a scam or real?”

This helps her truly understand, not just listen

6. End with confidence

Tell her:

“You don’t have to know everything. It’s enough if you don’t make decisions in a hurry.”

7. TAXES

7. 1. Simulation: "The Survival Course of Island Republic"

Topic: Fiscal policy choices, state budget balance, and citizen satisfaction.

- **Objective:** To understand how different tax systems (progressive, proportional, high vs. low taxes) affect social stability, economic growth, and the standard of living.

Preparation and Roles:

Divide the class into groups of 4–5 students. Each group acts as the **government of an independent "Island Republic."** The island consists of three social classes:

1. **Wealthy Entrepreneurs (20% of the population):** High earners who want low taxes and a free market.
2. **The Middle Class (50% of the population):** Want good public services (education, roads) but a reasonable tax burden.
3. **Low-income Earners (30% of the population):** Rely on government subsidies, free healthcare, and a high minimum wage.

Procedure:

- **Phase 1 (The Tax Law):** Governments must design a tax system for their island. They determine the type of income tax (flat or progressive), the value-added tax (VAT) rate, and excise duties.
- **Phase 2 (Budget Allocation):** A virtual sum (e.g., €100 million) is credited to the island's budget. The groups must decide what percentage goes to education, healthcare, policing/emergency services, and social welfare.
- **Phase 3 (Crisis Cards):** The teacher plays the role of "fate" and draws crisis cards that affect the budget and public satisfaction.
 - *For example:* "A storm hit the island, repairing infrastructure costs €20 million" or "Teachers are striking, demanding a 10% wage increase."
- **Phase 4 (The Outcome):** Governments must respond to the crisis—either by raising taxes, taking out a loan, or cutting spending. At the end of the game, points are calculated based on how much money is left and the satisfaction index of the three social groups.

Debriefing Discussion: Which government managed to keep society the most stable? Why is it impossible to make a decision that pleases absolutely every citizen?

7.2. Simulation: "Business Budget and the Tax Wedge"

Topic: Labor taxes, business risk, and fair competition.

- **Objective:** To learn to see salaries and taxes through the eyes of an entrepreneur and understand why the state enforces tax compliance.

Preparation and Roles:

The class is divided into 3-member "IT and Design Companies." All companies are competing in a government tender to create a new state mobile app. The state will select the cheapest bid that meets the quality standards.

- Each company has a starting capital.
- Each company needs three specialists to do the job (a designer, a programmer, and a project manager) who refuse to work unless they receive a *take-home* (net) salary of at least €1,500 per month.

Procedure:

- **Phase 1 (Calculating Labor Costs):** Students must use a real salary calculator. They will discover that to pay an employee €1,500 net, the gross salary must be around €1,900 (in Estonia, calculate your own!), and the actual cost to the employer (including social tax and unemployment insurance) is nearly €2,500 (again – in Estonia!).
- **Phase 2 (Making the Bid):** Companies submit their price bids for the government tender, taking into account labor costs and their desired profit margin.
- **Phase 3 (The Black Market and Temptation):** The teacher secretly approaches the groups and offers an "under-the-table cash deal": *"You can officially pay them the minimum wage and give them the rest in cash. You'll save 40% on labor costs and definitely win the tender."*
- **Phase 4 (The Tax Audit):** After the tender results are announced, the teacher (now acting as the Tax and Customs Board) conducts a random audit. Half of the companies that used cash-in-hand wages get caught (by rolling a dice). Those caught receive huge fines and go bankrupt, while the honest companies realize how hard it is to compete fairly when others cheat.

Debriefing Discussion: How do under-the-table wages affect honest businesses? Are taxes a drag on business development or an essential expense for society to function?

8. BUSINESS, SALES, PROFIT

8.1. Ice Cream Game

A very simple Demand-and-Supply-Game, making students to understand that profit is viable for a company and how the main business decisions are made, and of course, how to calculate prices.

Ice Cream Game

Tell students:

You and your friends have started an ice cream stand for the summer. Your objective is to make as much money as possible during the first week of summer. Unfortunately, the weather is going to be very unstable, which will have a big impact on ice cream demand (see table below). Choose how much ice cream to buy, whether to use money on marketing, decide your prices, roll the dice to see the weather and sell some ice cream. You have five weeks (rounds) to make as much money as possible.

You need:

1. Tokens for money and ice cream (or just use a sheet of paper).
2. One dice for every ice cream stand or only one dice for the teacher

Start:

Everyone starts with 10€.

Play the game:

A. Stocking, marketing and pricing phase:

1. Buy as much ice cream as you want (see table below for ice cream costs), ice cream does not get old (you can tweak this rule together to make the game a bit different -> you have to get rid of old ice cream at the end of the selling phase or every two weeks).
2. Decide the selling price for next week (1-9€).
3. Decide how much to spend on marketing.

B. Selling phase

1. Throw the dice to determine the weather (1 = terrible and cold rain, 6 = perfect sunshine). The dice can be thrown also by the teacher, so everybody will have the same weather.
2. Calculate how much ice cream you have sold this week (see the table below for demand).

Ice cream costs:

1 ice cream = 2€

5 ice creams = 7€

10 ice creams = 10€

Marketing:

Small advertisement (+1 for next dice roll) = 2€

Big advertisement (+2 for next dice roll) = 3€

Ice cream demand:

Dice roll						
Price	1	2	3	4	5	6
1	5	7	9	11	13	15
2	2	4	6	8	10	12
3	1	2	4	6	8	10
4	1	1	2	4	6	8
5	-	1	1	2	4	6
6	-	-	1	1	2	4
7	-	-	-	1	1	2
8	-	-	-	-	1	1
9	-	-	-	-	-	1

Worksheets for students

	Day 1	Day2	Day 3	Day 4	Day 5
Money at start	10 €				
Price €					
Marketing €					
Amount bought (pc/€)					
Cost €					
Dice roll					
Demand (pc)					
Offer (pc)					
Amount sold (pc)					
Stock (pc)					
Income €					
Profit €					
Total profit €					
Money left €					

When the game is over, discuss with students, how they made their decisions, when marketing helped the most, who had the biggest profit. Also tell your students that taking risks in games is a very good idea to see how different decisions influence the results.

Pay attention to making difference between profit and money they have!

8.2. Environmentally Friendly LEGO Tower

(Instead of the well-known spaghetti tower). It is an exercise focusing more to students who also learn entrepreneurship. It enables them to understand how to measure their results, how economise with materials and calculate their profit. But – it also turns attention to green entrepreneurship.

Using LEGOs also enables a teacher to be environmentally friendly and use the blocks several times with different groups.

The goal of the game: to find a balance by completing the task of building the highest tower, while minimising the resources used: time and materials. Competencies are also involved: teamworking, problem solving and communication skills.

Students plan, design, calculate cost to maximise the positive impact and construct a tower made from Lego bricks.

The phases are:

- Challenge setting
- Planning phase
- Dismantling and submitting the tender
- Timed building
- Judging and feedback

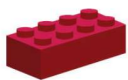
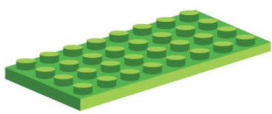
Resources Required

For facilitator:

- PowerPoint presentation with introduction, task and graphs (optional)

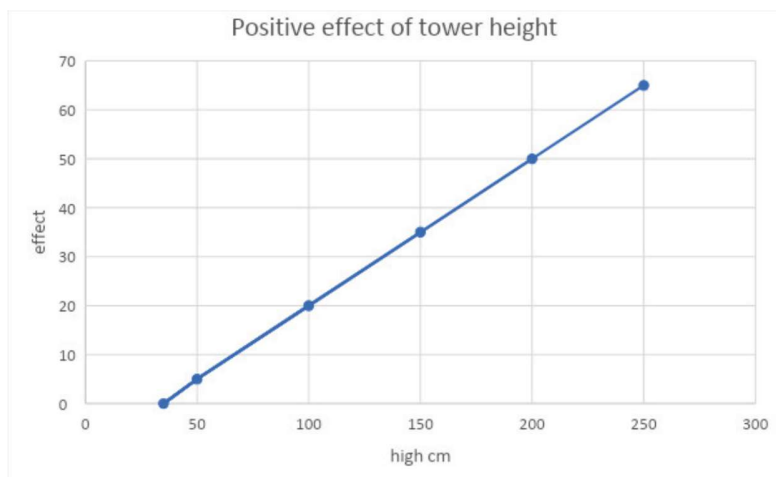
For participants per small group/team:

- 1 set of Lego bricks per team (in box or container)
- 1 participant brief per team
- 1 measuring tape per team
- 1 stopwatch per session
- Awards (optional)

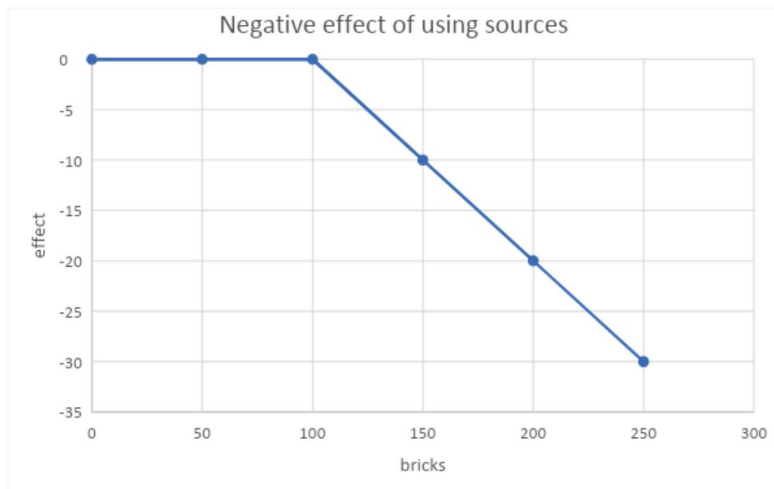
Brick 40 of (2 x 2) Design ID: 3003		Quantity x 40
Brick 50 of (2 x 3) Design ID: 3002		Quantity x 50
Brick 100 of (2 x 4) Design ID: 3001		Quantity x 100
Plate 10 of (2 x 10) Design ID: 2445		Quantity x 10
Plate 1 of (8x16) Design ID: 92438		Quantity x 1

Introduction:

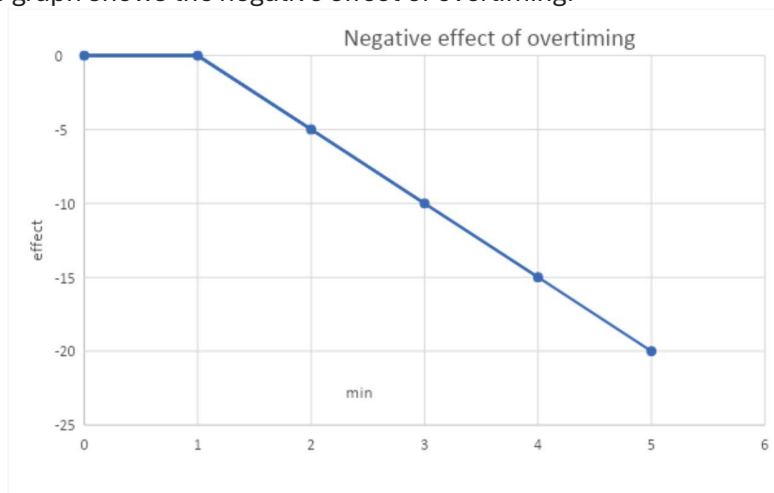
Participants are given the task of building a tower. The higher the tower, the greater the positive effect on the environment: it takes up less space, the overall costs of a large building are lower than for many small buildings and it is possible to see farther (can be used as a fire protection tower, etc.) The positive effect of building height is shown in the following graph:



But there are also negative effects during construction. The more resources are used, the higher the negative effect. The production of these resources has a negative impact on the environment. The graph shows the negative effect depending on the amount of resources used:



Also, the long time spent on construction can negatively affect the environment. The graph shows the negative effect of overtime:



In the planning stage (30 minutes), the participants check their resources, graphs of negative and positive effects and try to build a tower. At the end of this stage, they fill out a tender sheet and give it to the leader.

	Planned		Real	
	Quantity/meters /minutes	Effect	Quantity/meters /minutes	Effect
Bricks				
Hight				
Time				
Penalty/Bonuses				
Total				

Construction stage. Depending on the number of teams, the teams can build their towers simultaneously or one after another, so that the leader (judge) can observe and

take the time needed for construction. Alternatively, one participant from each team is appointed as a judge and goes to check time and observe the work of the other team.

After the towers are built and measured, the judge or participants themselves fill out a tender sheet with real data and calculates the positive or negative effect.

Depending on the group, penalties or bonuses can be added and also disqualification conditions.

9. REPEATING WHAT IS FINANCEIAL LITERACY

9.1. Financial Literacy Survival Quiz

1. You get a call from a "bank security officer" who tells you that a suspicious transfer has been made from your account. They ask you to quickly enter your Smart-ID codes to stop the transaction. What do you do?

- A) Enter the codes quickly – every second counts!
- B) Ask for the employee's name and then enter the codes.
- C) Hang up and call the bank's official number yourself.

2. What is compound interest (often called the "8th wonder of the world," attributed to Albert Einstein)?

- A) The interest you pay to the bank on a loan.
- B) Interest calculated on both the initial principal and the accumulated interest from previous periods.
- C) Interest that can only be earned by trading cryptocurrency.

3. Who is likely to accumulate a larger sum for retirement?

- A) An investor who puts away €100 every month for 10 years (ages 20–30) and then stops making contributions.
- B) An investor who starts at age 30 and puts away €100 every month for 35 consecutive years.
- C) Both will have the same amount, because the total depends only on the contributions made.

4. What is inflation?

- A) A process where the value of money decreases over time and the prices of goods rise.
- B) When your salary rises faster than your expenses.
- C) A tax that must be paid on the sale of shares.

5. You see an ad on TikTok: "This new meme coin will make you a millionaire in a week! Guaranteed 500% return!" What is the first red flag?

- A) The word "Guaranteed" combined with an unrealistically high return promise.
- B) The fact that the ad is on TikTok.
- C) The fact that I haven't heard of this coin before.

Answers and Explanations (For the Teacher)

- 1. Correct answer: C. The bank will NEVER ask you to enter codes over the phone. This is a classic scam.
- 2. Correct answer: B. Compound interest is "money making money." It is the biggest secret to long-term wealth.
- 3. Correct answer: A. Thanks to compound interest and the time factor, starting earlier is almost always more powerful than saving larger amounts later.
- 4. Correct answer: A. If inflation is 5% and your money is just sitting under your mattress, you will be able to buy 5% fewer things with the same money a year from now.
- 5. Correct answer: A. In the investing world, there is no such thing as a "guaranteed high return." The higher the promised return, the higher the risk (or it is a scam).

How to Conduct the Quiz?

- Kahoot/Quizizz: You can copy these questions into an online platform.
- The "Last One Standing" Game: Students stand up. You read the question. Those who answer incorrectly sit down. The last person standing is crowned the "Class Financial Genius."

9.2. Financial Literacy Quiz 2

1. What does the rule "pay yourself first" mean in the financial world?

- A. It means you should buy something nice for yourself before paying your bills.
- B. It means withdrawing cash from an ATM to avoid card payments.
- C. It means spending all your disposable income on entertainment on payday.
- D. It means setting aside savings immediately after receiving your salary, before making any other expenditures.

2. What is compound interest?

- A. It is a penalty paid for failing to repay a loan on time.
- B. It is interest paid only on bank transfers.
- C. It is interest calculated only on the initially invested amount.
- D. It is a situation where interest is earned on both the initial investment and previously earned interest.

3. What is an emergency fund (peace-of-mind fund) and why is it necessary?

- A. It is a savings buffer to cover unexpected expenses, such as job loss or car repairs.
- B. It is money meant exclusively for vacation trips.
- C. It is an investment account that holds only the riskiest stocks.
- D. It is a pension pillar that can only be accessed at age 65.

4. What does diversification of investments mean?

- A. Investing all your money into the shares of a single successful company.
- B. Keeping money as cash in several different banks.
- C. Spreading investments across different asset classes and companies to reduce risk.
- D. Buying only gold and silver in case of crises.

5. How do you recognize a typical investment scam?

- A. The offer promises unusually high returns with zero risk.
- B. The company asks you to review its annual report before signing a contract.

- **C.** The offer comes from your home bank through an official application.
- **D.** An investment advisor recommends starting with small amounts.

6. What is the main difference between gross salary and net salary?

- **A.** There is no difference between them if you work part-time.
- **B.** Gross salary is the salary including bonuses, net salary is without bonuses.
- **C.** Net salary is the amount from which taxes have already been deducted and which the person actually receives.
- **D.** Gross salary is the amount deposited into the bank account, net salary is the amount on paper.

7. What is an ETF (Exchange-Traded Fund)?

- **A.** It is an insurance policy that protects against stock market declines.
- **B.** It is a fund that pools together many different stocks or bonds and can be traded on the stock exchange.
- **C.** It is a digital currency that can be mined with a computer.
- **D.** It is a short-term loan provided by a bank to purchase shares.

8. Why is an instant loan (SMS loan/payday loan) often considered a "bad loan"?

- **A.** Because it can only be used to purchase real estate.
- **B.** Because applying for it takes too much time.
- **C.** Because the state pays it back for you if you don't have the money.
- **D.** Because it carries a very high interest rate and additional fees, making repayment expensive.

9. Which of the following is the effect of inflation on savings?

- **A.** It forces banks to lower interest rates to zero.
- **B.** Inflation does not affect cash, only money in a bank account.
- **C.** The purchasing power of money decreases, and the same amount of money buys fewer goods over time.
- **D.** The value of money grows, allowing it to buy more things in the future.

10. What should you do first if you receive a suspicious call claiming to be from your bank?

- **A.** Hang up the call and call your bank's official customer support number yourself.
- **B.** Immediately give them your personal identification code and Smart-ID PIN codes for identification.
- **C.** Scold the caller and wait for a new call.
- **D.** Quickly transfer your money to a secure account provided to you by the caller.

Correct answers for the teacher:

1D, 2 D; 3A; 4 C; 5A; 6C; 7 B; 8D; 9C, 10A.

10. HOW TO USE AI FOR CREATING EDUCATIONAL GAMES

How to Properly Use AI for Developing Financial Literacy Active Learning Materials

AI is most effective when used as a support tool rather than as the final author of educational content. When creating active learning materials for financial literacy, consider the following step-by-step approach.

1. Define the Learning Objectives

Before using AI, clearly identify:

- Who the learners are (primary school, secondary school, high school, adults).
- What learners should know or be able to do by the end of the lesson.
- Which financial literacy topics will be covered (budgeting, saving, investing, loans, taxes, etc.).

Example prompt:

Create learning objectives for a lesson on personal budgeting for 7th-grade students.

2. Generate Active Learning Ideas

Ask AI to suggest a variety of active learning methods, such as:

- Role-playing activities

- Simulations
- Case studies
- Group discussions
- Gamified exercises
- Problem-solving tasks

Example prompt:

Suggest 10 active learning activities that help 13-year-old students learn about budgeting.

3. Create a Realistic Scenario

Financial literacy is best learned through real-life situations.

Example prompt:

Create a realistic case study about a 15-year-old who receives €50 of pocket money each month and wants to save for a €300 bicycle.

4. Develop Learning Tasks

Use AI to create:

- Individual assignments
- Pair-work activities
- Group tasks
- Discussion questions

Example prompt:

Based on this case study, create five analytical questions and two group activities.

5. Verify Accuracy and Reliability

Financial information can change over time:

- Interest rates may change.
- Tax regulations may change.
- Investment-related information may become outdated.

Therefore:

- Verify all numerical data.

- Check relevant laws and regulations.
- Use official and reliable sources whenever possible.

6. Adapt Materials to Learner Needs

Ask AI to modify the same content for different levels:

- Simpler
- More advanced
- Shorter
- More practical

Example prompt:

Adapt this activity for 5th-grade students.

7. Include Reflection Activities

Active learning should always end with reflection.

Example prompt:

Create five reflection questions that help students evaluate their financial decisions.

Examples:

- What was the most difficult decision you had to make?
- Why did you choose that solution?
- What would you do differently in real life?

8. Develop Assessment Criteria

Use AI to create assessment rubrics.

Example prompt:

Create a four-level assessment rubric for a group project on family budgeting.

9. Critically Review the Materials

Before using the materials, ask AI:

What are the potential weaknesses of this learning activity?

And How could this activity be made more engaging, inclusive, and practical?

10. Maintain the Teacher's Role

Best practice is:

- AI generates ideas and drafts.
- The educator reviews and validates the content.
- The educator adapts it to the learners' needs.
- The educator facilitates discussion, reflection, and deeper learning.

Conclusion

In financial literacy education, AI provides the greatest value in idea generation, case-study development, differentiation of learning materials, and task creation. However, responsibility for content quality, factual accuracy, pedagogical suitability, and ethical use remains with the educator or instructional designer.

THANK YOU FOR READING AND WE HOPE THAT YOU WILL FIND SOMETHING THAT HELPS YOU TO ACTIVATE YOUR STUDENTS IN YOUR CLASSROOM

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