LEARNING BOX OF UNPLUGGED ACTIVITIES

The weekly grocery shopping

In this unplugged activity, participants take on the role of managing a weekly grocery shopping task with a limited budget. They are given a household profile (e.g., number of people, dietary needs, preferences) and a list of available products with prices, quantities, and basic nutritional or practical information.

The challenge is to create a balanced and realistic grocery list that meets the household's needs without exceeding the budget. Participants must prioritize essential items, make trade-offs, and decide how to allocate their limited resources effectively.

Target Group

- ☑ Low-skilled adults with low digital competences
- ☑ Low-skilled adults with limited formal education or qualifications
- ☑ Low-skilled adults with low participation in lifelong learning / training opportunities

Learning Objectives

- Analyze household needs and constraints when planning a grocery list.
- Apply decomposition to break down the task into categories such as food types, budget, and quantities.
- Recognize patterns in recurring consumption and essential items.
- Use abstraction to focus on key factors like cost, necessity, and nutritional balance.
- Develop a structured strategy to stay within a limited budget.

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Theme

Household budgeting and everyday resource management

Duration

60 mins

Level

Beginner

Computational Thinking Steps Used

- ☐ Decomposition
- ☑ Pattern recognition
- ☑ Abstraction
- ☑ Algorithmic thinking

Methodological Approach

- ☐ Gamification
- ☑ Challenge-Based Learning
- ☐ Collaborative learning
- ☐ Experiential learning

Competence Areas

a) Innovation Competences

- ☑ Creativity
- ☑ Critical thinking
- ☑ Problem solving
- ☐ Communication
- ☐ Collaboration

b) Information Literacy Competences

- ☑ Ability to access, understand and critically analyse information
- ☐ Interpretation of digital and visual content
- ☐ Awareness of media influence and biases

c) Life and Career Competences

- ☐ Flexibility and adaptability
- ☑ Initiative and autonomy
- ☐ Sociability and intercultural competence
- ☑ Productivity
- ☐ Leadership and responsibility

Learning Outcomes

- Develop a resource allocation plan that fits defined constraints (e.g., budget and household needs)
- Prioritize essential items over non-essential ones based on explicit criteria
- Identify patterns in recurring consumption and household needs to inform planning decisions
- Apply decomposition and abstraction to simplify complex budgeting and planning decisions
- Make justified trade-offs when allocating limited resources

Notes

- Provide a clear but limited budget to force prioritization and trade-offs.
- Include a variety of products with different prices, quantities, and levels of necessity (staples vs. optional items).
- Avoid excessive nutritional or technical detail; focus on decision-making, not expertise in diet planning.

- Ensure that not all desired items can fit within the budget to create meaningful constraints.
- Encourage participants to group items into categories (e.g., proteins, vegetables, staples) before selecting products.
- Allow multiple valid solutions depending on priorities (cost-saving vs. variety vs. nutrition).
- Introduce optional “event cards” (e.g., price increase, unexpected guest, discount offer) to add complexity.

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The weekly grocery shopping

Step 1: Understand needs and constraints

Participants receive a household profile (e.g., number of people, basic needs, preferences) along with a fixed weekly budget and a list of available grocery items with prices.

They review the information and define what is essential for the week (e.g., basic meals, staple foods) versus what is optional.

Computational thinking focus: Abstraction, focusing on key factors such as budget, necessity, and quantity while ignoring less relevant details.

Step 2: Identify patterns and plan the list

Participants analyze recurring consumption patterns (e.g., daily meals, staple foods like rice, vegetables, or protein sources) and use these patterns to structure their grocery list.

They begin selecting items while considering how often they are used and how they contribute to covering weekly needs.

Computational thinking focus: Pattern recognition, identifying regular consumption habits to guide efficient planning.

Step 3: Build and justify the final shopping list

Participants finalize their grocery list, ensuring it stays within budget while covering essential needs. They may need to make trade-offs by removing or replacing items.

They present and justify their decisions, explaining how they balanced cost, necessity, and variety.

Computational thinking focus: Algorithmic thinking, applying a clear, step-by-step strategy to make purchasing decisions under constraints.

ACTIVITY CARDS

The weekly grocery shopping

Card Categories

Profiles

Grocery products

Budget

Priority Levels

Essential
Extremely necessary to take into consideration

High
Importance

Medium
Helpful to take into consideration

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Print and cut the cards on the following slides to use in the activity.

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FAMILY OF FOUR

Members: 2 adults, 2 children

Weekly Budget: €90

Special Needs:

- One child is lactose intolerant.
- The family prefers home-cooked meals.

SINGLE ADULT

Members: 1 adult

Weekly Budget: €40

Special Needs:

- Works full-time.
- Needs quick and easy meals.

OLDER COUPLE

Members: 2 adults

Weekly Budget: €60

Special Needs:

- Prefer fresh fruit and vegetables.
- Need low-salt products.

STUDENT FLAT

Members: 3 students

Weekly Budget: €75

Special Needs:

- Limited cooking experience.
- Prefer inexpensive meals.

BREAD

PRICE: €2

CATEGORY: STAPLES

RICE (1 KG)

PRICE: €3

CATEGORY: STAPLES

PASTA (500 G)

PRICE: €2

CATEGORY: STAPLES

MILK

PRICE: €2

CATEGORY: DAIRY

LACTOSE-FREE MILK

PRICE: €3

CATEGORY: DAIRY

EGGS (12)

PRICE: €4

CATEGORY: PROTEIN

CHICKEN BREAST

PRICE: €8

CATEGORY: PROTEIN

CANNED BEANS

PRICE: €2

CATEGORY: PROTEIN

FRESH FISH

PRICE: €10

CATEGORY: PROTEIN

APPLES (1 KG)

PRICE: €3

CATEGORY: FRUIT

BANANAS (1 KG)

PRICE: €2

CATEGORY: FRUIT

TOMATOES

PRICE: €3

CATEGORY: VEGETABLES

BUDGET AVAILABLE

Total Budget:

€ _____

MONEY SPENT

Current Total:

€ _____

MONEY REMAINING

€ _____