Numeracy in practice teaching and learning examples



EAT WELL SPENDING LITTLE

Strategies for saving money at the supermarket.

Grocery shopping has become a balancing act, especially with inflation and economic pressures making it harder to stay within budget. For some, it's enjoyable; for others, stressful, as they navigate crowded aisles, fluctuating prices, and financial limits. Before shopping, people often create lists and estimate costs, using ads, coupons, or store apps to find discounts—bringing math into play early on. Inside the store, they make constant calculations, comparing prices per unit and keeping a mental tally to avoid overspending. At checkout, they experience a moment of truth: have they managed to stay within their budget?

Overview "EAT WELL SPENDING LITTLE"

Context

Finances Everyday life

Content

Addition
Subtraction
Multiplication

Is it possible to spend less doing grocery?

Target group (incl. necessary prior skills and competences)

Adults and young adults with a basic level of mathematics, able to do simple operations and to relate several numbers to each other

Outcomes and results

Find and use an effective strategy to save money while shopping

Cognitive processes

Analising situations
Managing informations

Dispositions

Flexibility





Teaching and learning examples

Main information				
Content	Natural and decimal numbers; Multiplication, division and addition			
Target group	Adults and young adults. Learners with a basic level of mathematics, able to do simple operations and to relate several numbers to each other;			
Learning intention	Numeracy for personal and private purposes			
Duration	2 UE+			
Material and resources	Presentation developed by the teacher; picture cards.			
Group size	Range from 4 to 8 learners			
Problem statement	The ever-increasing cost of living affects everyday choices. People often save money by giving up some expenses, but when it comes to food, giving up is not always possible. In this case, trivial mathematical strategies can be used to save money, which might seem negligible but if carried out over long periods of time, can make a big difference in finances.			
Working questions	Which numeric strategies can we use to evaluate the prices of products? How can learners recognize the importance of the price per kilo / per liter /? How can learners objectively evaluate bait offers and other marketing strategies? What actions can help learners to save money when shopping (e.g. bringing a shopping basket, writing a shopping list)?			
Learning outcomes and results	The students are able to indicate the cheapest product among some proposed (as it happens on the shelves of a supermarket), calculate the total while staying within a given budget.			



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Working plan

Time (lessons)	Description of content/activities	Material	Methodical and didactic information ¹
60'	1. Discover and discussion The problem is proposed to the learners. Follows a phase of sharing various strategies that the learners use or have heard about. The teacher has prepared a short presentation that is edited in real time by adding the considerations/points suggested by the learners. At the end of the activity, the jointly drafted document will serve as a small handbook for subsequent activities and for everyday life. This stage, being quite common as a situation, needs direct participation from the learners who should be stimulated to take action about it. [suggestion] If they do not emerge from the discussion, it is important for the following points to be addressed: prices per kilo/liter or other units of measurement, use of a bag brought from home, attention to shelfmarketing	Presentation	Questioning Information
45'	2. Price analysis Picture cards depicting the food item with its price on one side and the price per kilo on the back are proposed in this phase. Example: the learners will have in front of them two or more cards depicting packages of pasta with different prices. At first they will have to indicate which card seems to depict the cheapest pasta. At a second time they will turn the cards over and, looking at the price per kilo, they will have to evaluate whether the choice	Picture cards (see appendix 1)	Hands on learning [This activity can be done individually or possibly in pairs. In that case the other member of the pair will take the role of checking whether or not the choice made by the partner is correct. At that point a

¹ for description and explanation of kinds of tasks, HITS and other background information please consult the teacher's/user's guide





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	they previously made is still the cheapest.		discussion and sharing phase can begin.]
60'	This activity involves a simulation of what might happen at the grocery store. It is divided into two steps (a & b). a) a shopping list and a budget are given. Using the picture cards from step 2, each person will have to choose which products to buy. Learners are informed that they have the option of possibly giving up some items; in this regard, it is important to indicate next to each item on the list, which products are "must-haves" and therefore absolutely must be bought. b) each person will do a check activity on the spending done by another person. At this time it might be an idea to have the check activity done by operating a series of subtractions from the total budget, so as to train learners in the use of subtraction and to stimulate this method as well.	Picture cards Shopping lists (see appendix 2)	Hands on learning [Depending on the group of learners participating in the activity, this phase can also be done in pairs or, if very good at computation and competitive, as a timed competition]
30′	4. Discussion on work done and information gained The discussion is guided by also asking learners when mathematical tools were used during their investigation and asking them to do a confidence analysis with which these methods were used.		Feedback



Appendix

APPENDIX 1: Examples of picture cards for phase 2 (*Price analysis***):**

FRONT:







BACK:

2,65 €/ kg

2,98 €/ kg

2, 78 €/ kg



APPENDIX,2: Examples of shopping list for phase 3 (Eye on the budget):

SHOPPING LIST

- TOMATO SAUCE
- PASTA *
- MILK*
- WHITE WINE *
- SLICED BREAD*
- $\bullet \, BISCUITS^*$
- DISH SOAP
- APPLES
- TOILET PAPER*
- PEANUTS

[PRODUCTS WITH * ARE INDISPENSABLE]



