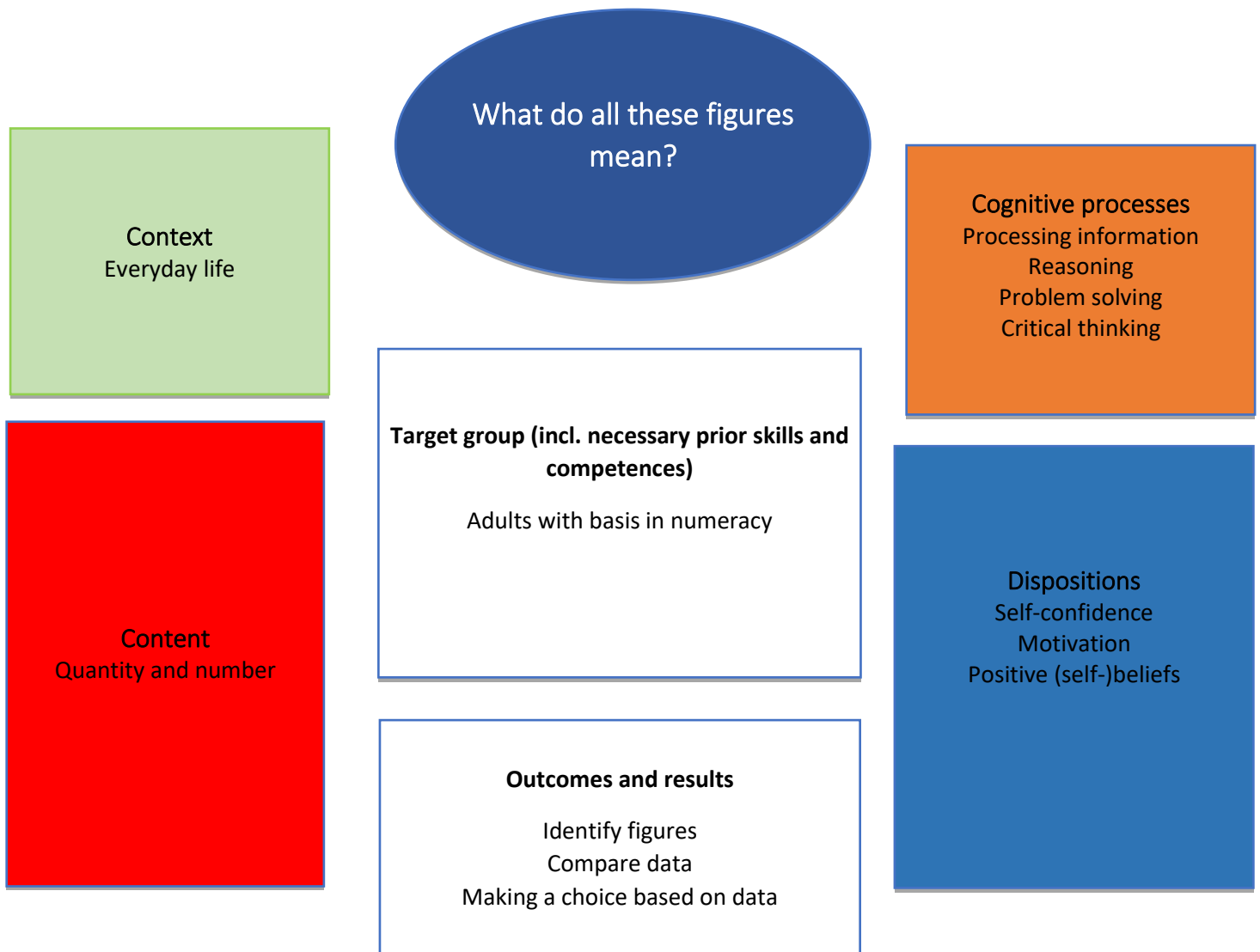


Do you have to be a “light” to choose a bulb?

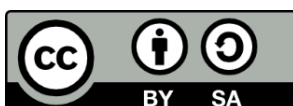
We're all gradually replacing our old light bulbs with LED bulbs. But when you look at the supermarket shelves, you're faced with a lot of figures that aren't so easy to understand...

Overview “How to choose a light bulb”



Main information

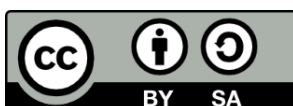
Content	Quantity and number
Target group	All learners who know the basics of numeracy
Learning intention	Numeracy for personal issues
Duration	1 lesson
Material and resources	If possible, light bulb packaging of various makes and models. If not, photos of the packaging (see Appendix 1)
Group size	5 to 12 learners
Problem statement	To choose the right bulb, I need to compare the different proposals, and identify what the information on the packaging refers to..
Working questions	<ul style="list-style-type: none"> - What information is on the packaging? - How should it be interpreted? - Which are essential, which are optional?
Learning outcomes and results	<ul style="list-style-type: none"> - Identify figures - Compare data - Making a choice based on data
Reference to National Qualification Frame	Optional (country's decision)



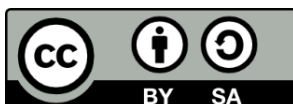
Working plan

Time (lessons)	Description of content/activities	Material	Methodical and didactic information ¹
15'	<p>Introduction</p> <p>The teacher introduces the topic of the day, the replacement of old light bulbs with LED bulbs. He asks the learners if they are familiar with this type of bulb, what difference it makes, and if they have ever had to make the change. If so, how did they go about it, and how did they choose the right bulb?</p>		<p>Questioning Discussing</p>
30'	<p>Exploration</p> <p>Individually, each person notes all the figures on the packaging they have and hypothesises about their meaning. Each person then presents their results, and the trainer notes down all the readings on the board.</p>	<p>Packaging for LED bulbs (or, failing that, photos of the packaging, see appendix 1)</p>	<p>Individual Self-reflexing</p>
25'	<p>Data analysis</p> <p>Collectively, the learners are helped by the teacher to summarise the data collected, group them into categories and validate their meaning. If the group is unable to agree on a meaning, the trainer provides additional information. The aim is to draw up a table summarising the data, like the one proposed in Appendix 2.</p>	<p>Summary table (see appendix 2)</p>	<p>Collaborative learning Discussing</p>

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

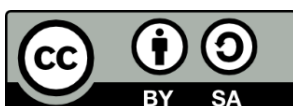
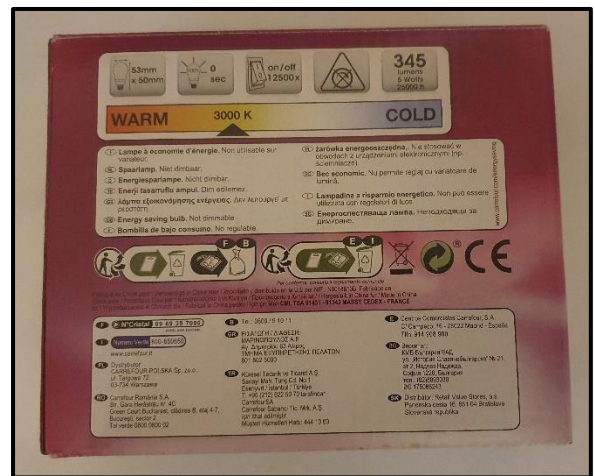


25'	<p>Comparing data</p> <p>In sub-groups, the learners complete the table created with the information from the packaging. The data that differ for the same bulb format are highlighted in colour.</p>	<p>Bulb packaging.</p> <p>It is important at this stage:</p> <ul style="list-style-type: none"> - To have sufficient number of different types of packaging - To offer bulbs of the same format (E17/GU10...) but with different wattages and colour temperatures 	<p>Collaborative learning</p> <p>Discussing</p>
20'	<p>Solving the problem</p> <p>Using the information in the tables, what are the criteria for choosing a light bulb? Distinguish between those that are imposed on the consumer (size, maximum wattage of the luminaire) and those that are a matter of choice (colour temperature, brightness).</p>		<p>Discussing</p>

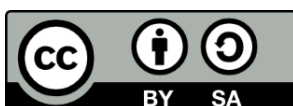


Appendix 1

All the photos below were taken by ALPES

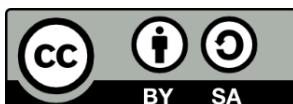


Appendix 1



Appendix 2

Model	Bulb format (E14, GU10,...)	Power in Watts	Brightness in Lumen	Type of light in Kelvin	Lightning angle	Number of hours of use	Switch-on time	Bulb dimensions	Number of bulbs in the batch	Other (please specify)



This material was produced in the Erasmusplus project **Numeracy in Practice**, projectnumber 2021-1-NL01-KA220-ADU-000 026 292. In this project, 11 partners in 11 countries worked together in designing, evaluating and improving the materials. All materials can be found on the website (www.cenf.eu).



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