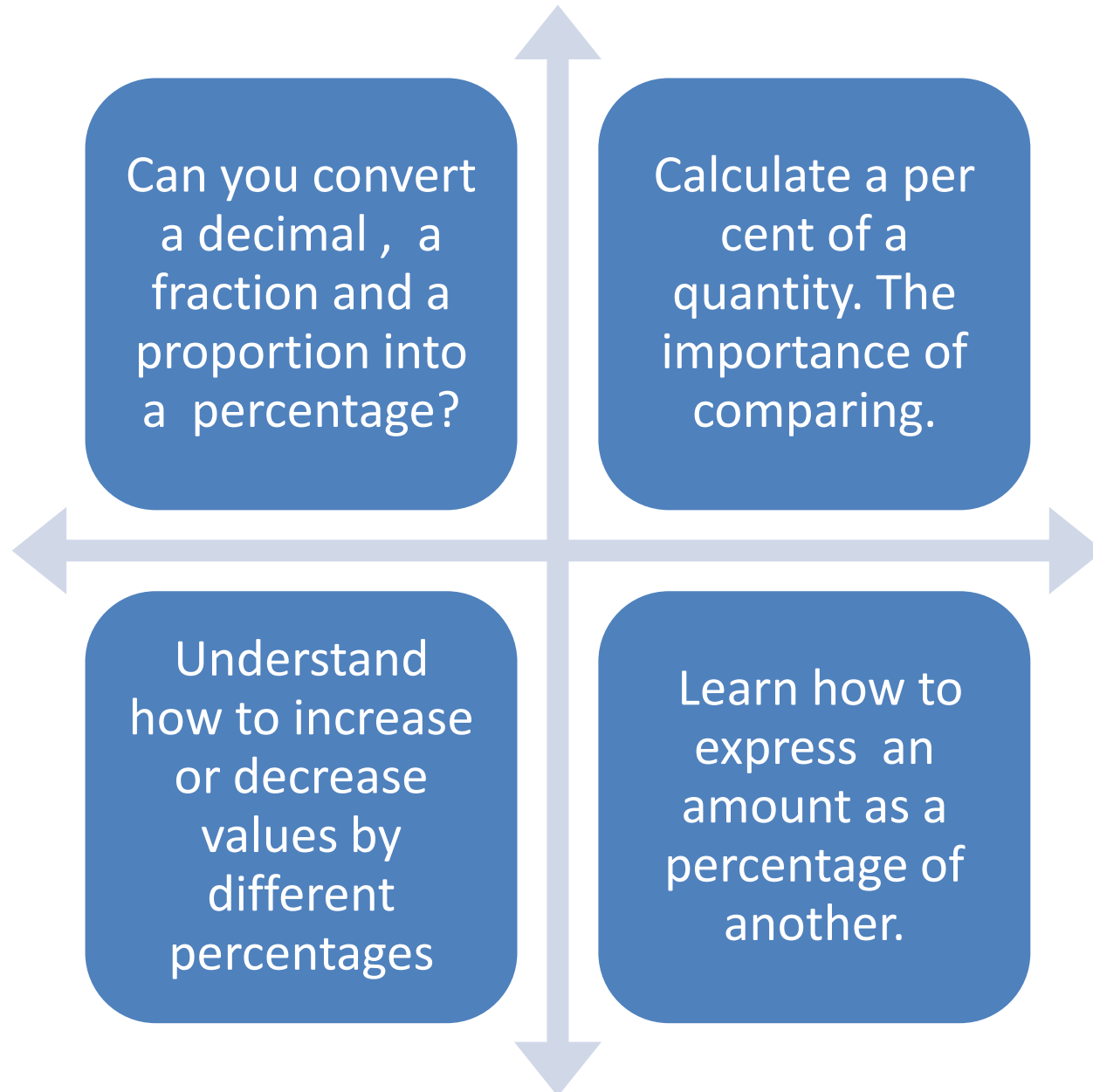


# **Unit: PERCENTAGES**

Ana Rosa Rodríguez Pérez

# A need to know



**We want to know that percentages are important to compare different quantities**

# Executive function skills

- Task initiation
- Working memory

# CALP

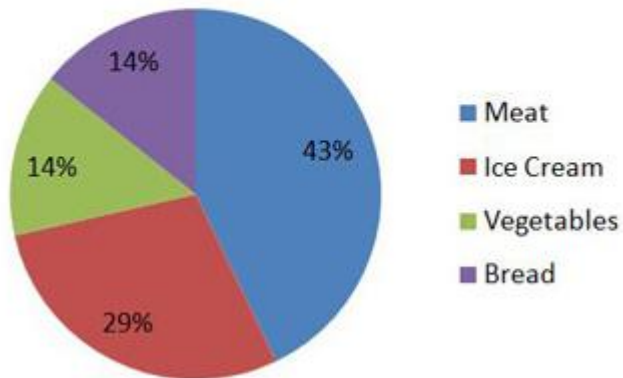
Benefit

- Profit
- Per cent
- Value
- Decreased by
- Amount
- Increased by
- Sale

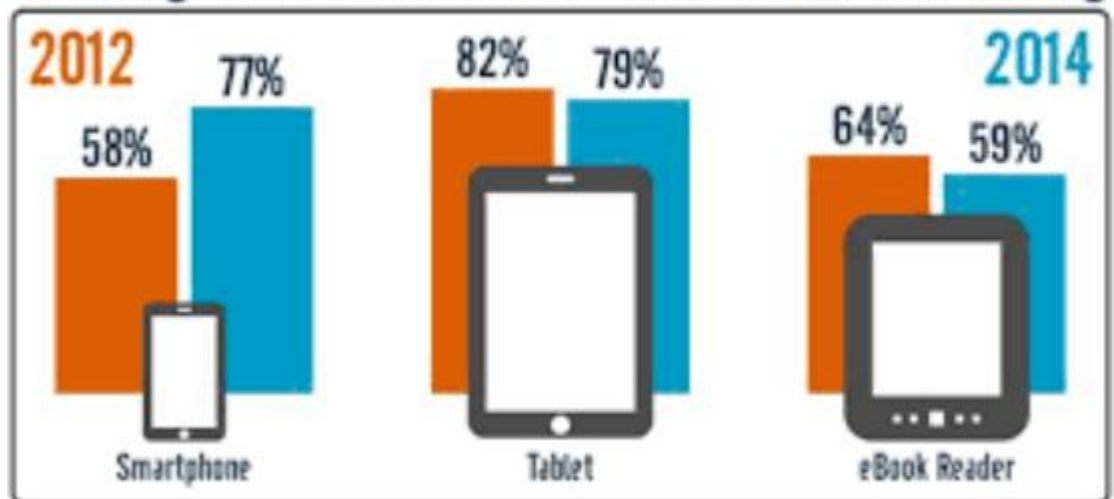
- Loss
- To rise
- Money off
- Final
- Discount
- Variation
- To fall

# Advanced organizer

## What We Ate Yesterday



## Percentage of students who own a device and use it for learning



- **Percentage increase and decrease on clothes, food, population, VAT, numbers applying for your school popularity of political figures, share prices.**
- **Newspapers.**

# Which one would you buy?

-  €600
-  500
-  400

Useful words to explain yourself: decrease by, final amount )

# Driving question:

Why is it important to understand percentages in real life ?



# **Our project (first step)**

- The project is to design a poster to be used on sales.
- The poster must include the initial price, the percent and the final price.
- Students have to “Google” and find the basic information.



# Exemplars of posters

## SALE

## SALE

70% OFF on footwear  
50% OFF on electronics



## 50% OFF



# HOTS IS THE FIRST STEP

- **Analyse** the different posters of the exemplar  
Which is your favorite one? which one is the best way to organize your information?
- **Evaluate:** Consider the needs of shop that encourages costumers to buy.
- **Create:** a poster that includes something to grab the customers' attention using percentages.

# Connecting the rest of the unit to the project: Inquiry and innovation

## TEACHING SEQUENCE

- **Session 1.** Advance organizer (about 15') and driving question. (Introduce first section of the unit )

**Inquiry:** Can you convert a decimal, a fraction and a proportion in a percentage? Gallery walk ( different papers with %, fractions , decimals and students must to match them)

- **Session 2.** Calculate a per cent of a quantity ( Introducing second section of the unit ). What happens if you increase and decrease the same percent to a quantity?  
Example : 80 increase by 25% you get 100 decrease by 25% you get 75.
- **Session 3.** Second section of the unit. Comparing percentages in real life . Some examples. Starting with the project.
- **TASK 1: HOTS: analyze several posters, evaluate the steps necessary to make a good marketing.**

**Inquiry:** When is necessary to use percentages ?

- **Session 4.** Third section of the unit ( understand how to increase or decrease values by different percentage)
- **Inquiry:** Do you know how to calculate the final price if you know the percent and the initial price ?
- **TASK 2 : LOOKING FOR EXAMPLES OF GOOD MARKETING. DISCUSSION.**

- **Session 5.** Third section of the unit (to know the percent ).
- **Inquiry:** Do you know how to calculate the percent if you know the initial and the final price ?
- **TASK 3 : THEY DECIDED ON A DESIGN ON A POSTER RELATED TO SALES.**

- **Session 6.** Third section of the unit (to know the initial price ).

**Inquiry:** Do you know how to calculate the initial if you know the percent and the final price ?

( jigsaw : all the possible situation)

- **Session 7.** Fourth section of the unit ( Learn how to express an amount as a percentage of another) Examples.
- **TASK 4 THEY PREPARE THEIR POSTER AND SHARE IDEAS WITH THEIR MATES.**
- **Session 8. TASK 5 : PRESENT YOUR POSTER TO THE LOCAL SHOPS FOR THEM TO CHOOSE.**

# CHECK LIST

- TASK 1.- LOOKING FOR EXAMPLES OF GOOD MARKETING.
- TASK2.- THEY DECIDED AND CREATE THE DESIGN OF A POSTER RELATED TO SALES.
- TASK 3.- PROPOSAL TO CALCULATE PERCENTAGES.
- TASK 4.- THEY PREPARE THEIR POSTER.
- TASK 5 .- THEY SHOW THEM TO THE CLASS. GETTING NEW IDEAS.CHANGES.
- TASK 6 PRESENT YOUR POSTER TO THE LOCAL SHOPS. POSSIBLE CHANGES.

# BENCHMARKS AND CHECKLIST FOR PERCENTAGES PROJECT

- Created a proposal to calculate percent of a quantity in real life examples.
- Identified all the possible cases when they are solving problems.
- Suggested different ways of making a good marketing.
- Prepared a poster in class presentation with introduction, body, and conclusion using the content language for percentages.

# RUBRIC

<b>Relevance</b>	The poster are related to the topic and make it easier to understand. All borrowed graphics have a source citation.	The poster is related to the topic and most make it easier to understand.	All graphics relate to the topic. Most borrowed graphics have a source citation.	Graphics do not relate to the topic OR several borrowed graphics do not have a source citation.
<b>- Originality</b>	Several of the drawings used on the poster reflect a exceptional degree of student creativity in their creation and/or display.	One or two of the drawings used on the poster reflect student creativity in their creation and/or display.	The drawings are made by the student, but are based on the designs or ideas of others.	No drawings made by the student are included.
<b>Required Elements</b>	The poster includes all required elements as well as additional information.	All required elements are included on the poster.	All but 1 of the required elements are included on the poster.	Several required elements were missing.
<b>Attractiveness</b>	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed. It is not attractive.
<b>Grammar</b>	There are no grammatical mistakes on the poster.	There is 1 grammatical mistake on the poster.	There are 2 grammatical mistakes on the poster.	There are more than 2 grammatical mistakes on the poster.
<b>Use of Class Time</b>	Used time well during each class period. Focused on getting the project done. Never distracted others.	Used time well during each class period. Usually focused on getting the project done and never distracted others.	Used some of the time well during each class period. There was some focus on getting the project done but occasionally distracted others.	Did not use class time to focus on the project OR often distracted others.