INTERPRETING GRAPHS

The media frequently use graphics to expose certain concepts in an immediate way, to show economic and social trends, or simply to 'photograph' a situation. There are different types of charts and usually the one considered most effective according to the purpose is chosen. Although these graphs seem immediate, colorful and simple, you have to pay the right attention to be able to interpret them in the best possible way.

Overview "INTERPRETING GRAPHS"

How to interpret graphs correctly

Context
Everyday life
Work-related
Citizenship

Cognitive processes
Analyzing situations
Managing situations
Critical thinking

Target group (incl. necessary prior skills and competences)

Adults and young adults with basic knowledge of mathematics;

Learners are curious to society themes and they want to be autonomous in evaluating situations.

Content
Quantity and number
Dimension and shape
Pattern

Dispositions

Self confidence
Flexibility

Outcomes and results

Learners will correctly interpret the graphs, which is a necessary and sufficient condition for understanding the reality displayed and possibly forming an idea about it.

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Main information

Content	Quantity and number ; Percentage; dimension and shape.
Target group	Adults and young adults with basic knowledge of mathematics. Learners are also curious to society themes and they want to be autonomous in evaluating situations.
Learning intention	Numeracy for personal and private purposes Numeracy to understand society
Duration	Approx. 3 hours
Material and resources	Internet access, projector, board, slides.
Group size	Range from 4 to 12 learners
Problem statement	Newspaper articles, television services, Instagram posts , advertisement, election leaflets and much more can use graphs to express a concept immediately. In order for the concept to be properly grasped, however, it is necessary to know how to interpret the structure and the information represented properly.
Working questions	- What is a graph? - How many types of charts do you know? - Where do you usually view them? - What information can you glean from a graph? - Have you ever used/created one? If so, when? - Analyzing a graph: what information can you get from it? What information can you not get from observation? What knowledge about the subject related to the graph do you need to better understand the information shown in it?
Learning outcomes and results	The learners will correctly interpret the graphs, which is a necessary and sufficient condition for understanding the reality displayed and possibly forming an idea about it.
Reference to National Qualification Frame	Optional (country's decision)

Working plan

Time (lessons)	Description of content/activities	Material	Methodical and didactic information[1]
40’	**1.Discover** The teacher guides this phase of discovery of the graphs using material available online (*an example can be found in the Appendix*) and using some of the questions of the “*Working Questions*”. The purpose of this phase is to show learners the various types of graphs also explaining their characteristics of use.	Projector Slides	Questioning Explicit Teaching
45’	**2.Let’s interpret graphs** The activity is carried out in pairs; each is presented with different types of graph to be analyzed and interpreted in order to answer certain questions. *[Suggestion: it might be interesting, if we know learners, or if they are part of a certain category (e.g. work), find some graphs related to the sector. However, it remains important to try to present different types of charts that cover different themes, also to make learners grasp the heterogeneity and transversality of uses.]*	Printed graphs or, if possible, sent or shared on computers on which couples work	Hands on learning Collaborative learning Questioning

[1] for description and explanation of kinds of tasks, HITs and other background information please consult the teacher’s/user’s guide

45'+	**3. Let's find graphs to interpret** The activity is divided into two phases. At first, couples search the internet for a couple of charts, observe them, try to interpret them, and ask questions about them. This research phase will be used to create other material to be interpreted (similar to the one present in phase 2). In the second part of the activity the pairs will exchange the created materials and analyse them.	Computer or personal devices, Internet access	Collaboration Hands on learning Role playing
40'	**4.Discussion** In this last part there is space for sharing impressions and evaluations of learners.		Feedback

Appendix

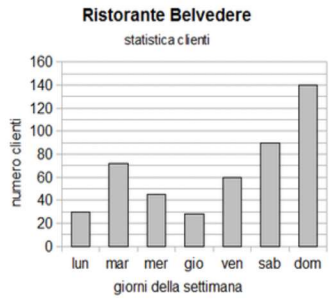
1.DISCOVER

https://www.edrawsoft.com/it/chart-types-uses.html

2. LET'S INTERPRET GRAPHS

[SOME EXAMPLES]

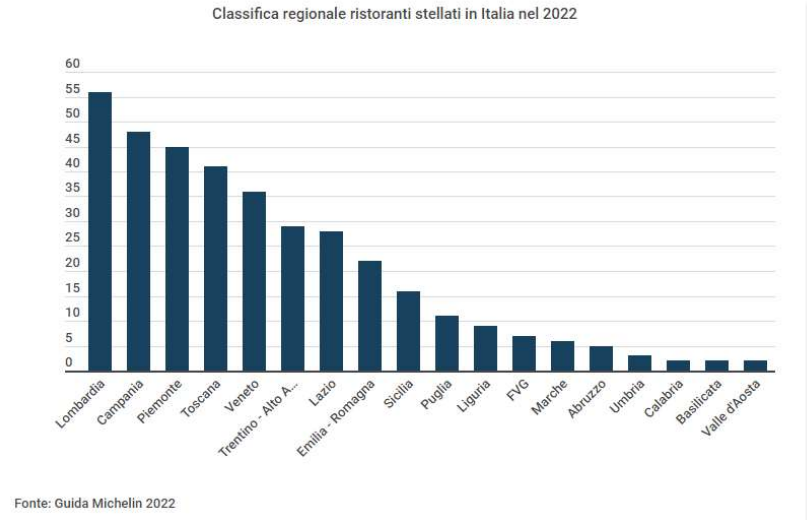
Il seguente grafico rappresenta il numero di clienti che hanno pranzato al ristorante BELVEDERE la scorsa settimana.
Quanti sono stati in tutto i clienti nel fine settimana (sabato e domenica)?



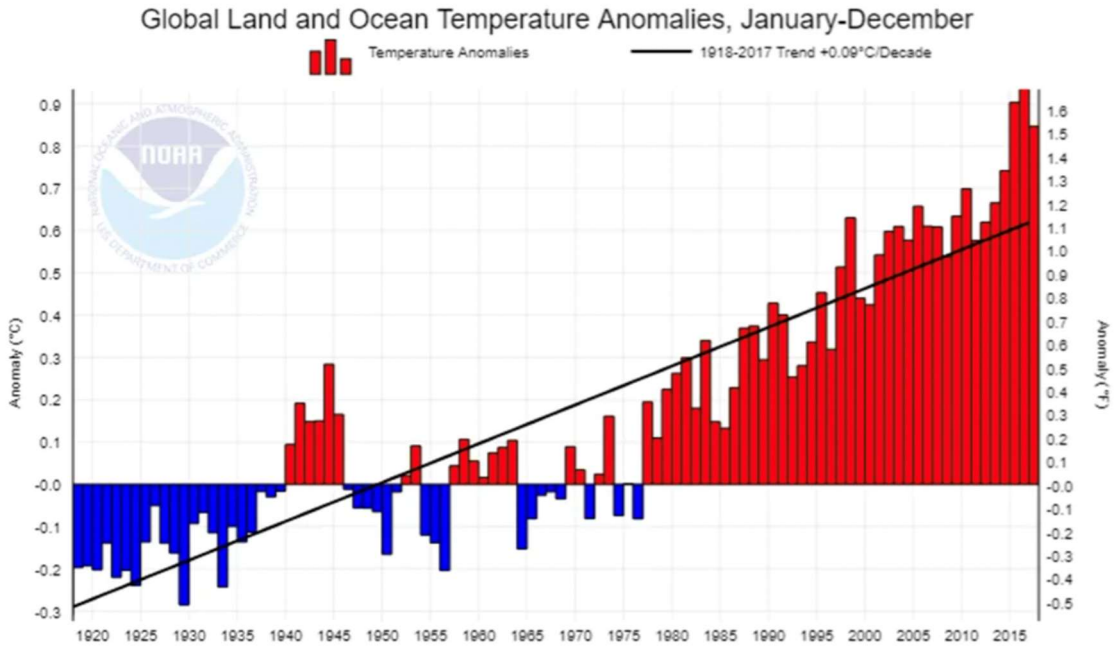
Quanti clienti hanno pranzato il martedì?

Quanti clienti non hanno pranzato il giovedì?

Supponendo che ogni cliente abbia speso in media 22,50 euro, quanto ha incassato il ristorante nei giorni feriali?



- In quale regione ci sono più ristoranti e in quale meno?
- Ci sono più ristoranti stellati al nord, al centro o al sud Italia?



- Dal 1920 al 2015 quali anomalie di temperatura sono state più frequenti? Positive o negative?
- Che andamento noti?
- Quali considerazioni potresti fare?