

Lesson Scenario: The Pyramid

Mathematics Teacher: Maria Stella Bolignano

School subject: Geometry

Educational level: 3rd year lower secondary school

School: I. C “ S. Casella”

Topic: The Pyramid

Duration: 60 minutes

Aims of the lesson: Inviting to discover geometry in everyday experience (in nature, in objects, in architectural compositions, in art) means thinking about learning paths with adequate contents, created in effective contexts, presented with a suitable language, integrated with the contribution of other subject and, in particular, supported by the idea that “*you can't learn mathematics if you don't do mathematics*”.

Methods: interactive lesson

Forms: PPT , Pear deck

Teaching aids

Key competences (see the European Parliament's and the Council of Europe's Recommendations; 2018) being developed in the course of the lesson:

- 1. Mathematical competence
- 2. Digital competence
- 3. Functional alphabetic competence
- 4. Personal social competence and ability to learn to learn
- 5. Entrepreneurial competence

I. Preparatory phase

1. Organisational activities:

- welcoming the students and brainstorming activity: “What do you wonder about pyramid?”

- giving the topic of the lesson and outlining the lesson's objectives:

- Strengthen positive attitude towards mathematics through meaningful experiences and understand how the mathematical tools learned are useful in many situations to operate in reality
- Recognize and name shapes of flat figures in the space, represent and capture the relationships between the elements
- Use and interpret mathematical language and capture its relationship with natural language
- Recognize and solve problems in different contexts by evaluating information
- Explain the procedure performed, also in written form, controlling both the resolution process and its results
- Compare different procedures and produce formalizations that allow him to move from a specific problem to a range of problems

2. Referring to the previous lesson:

- reminding students of essential information concerning pyramids in nature and common life

II. Implementation phase

See Tasks file ([Attachment](#))

- Teacher provide information and rules to students, reflecting on them together in class
- the tasks are to be done by the students working on their own; the teacher monitors individual students' work and, if necessary, helps the students with her tips

III. Summing up of the lesson:

The unfinished-sentences/incomplete-sentences method; individual students are to finish/complete the following sentences:

Today I've got to know how to...

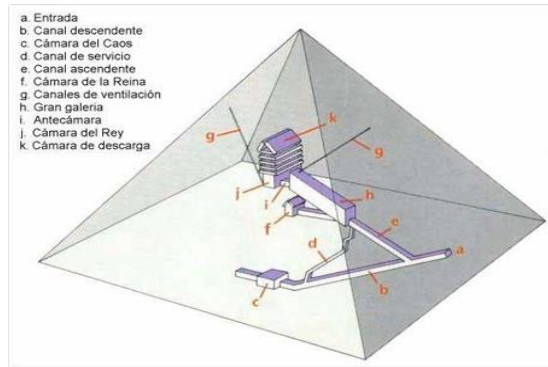
I found of interest.

I found to be the most difficult.

I foundto be the easiest to do.

The teacher evaluates the tasks performed.

Annex 1- Students individual task



Problem: The pyramid of Keops has the side of the base square of 230 m and the height of 146 m. How much does the apothem measure?

Online resources:

<http://teaching21.com/wp-content/uploads/2022/03/Lesson-about-Pyramid.pdf>

<https://www.youtube.com/watch?v=XqWxpmd8x4w>