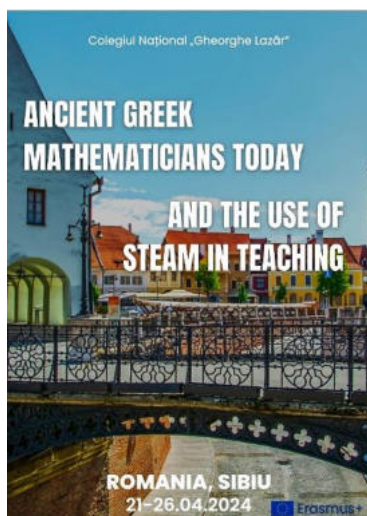




Proiect Erasmus+

"Ancient Greek mathematicians today and the use of STEAM in teaching"



PARTNERS:

- Peetri Lasteaed-Põhikool (Estonia)
- Szkoła Podstawowa im.M.J.Pilsudskiego (Poland)
- Gymnasio Dafnis (Greece)
- Colegiul National „Gheorghe Lazăr” Sibiu (Romania)

Activities within the Erasmus+ Project

Tuesday, 23.04.2024

Workshops:

Mathematical connections in art, music and science

"Music is the pleasure the human mind experiences

from counting without

being aware that it is

counting" (Gottfried Leibniz)

– games, digital applications, mindmapmaker



THALES'S THEOREM

CONSEQUENCES OF THALES'S THEOREM

WHO WAS THALES?

Thales of Miletus was a pre-Socratic Greek philosopher who contributed to the development of mathematics, astronomy and philosophy. He is considered the father of science.

EXERCICES
Find the value of x :

THALES'S THEOREM

In geometry, Thales's theorem states that if A, B, and C are distinct points on a circle where the line AC is a diameter, the angle $\angle ABC$ is a right angle.

LET'S TRY TO FIND OUT WHERE IS A CIRCLE'S CENTER!

THE PYRAMIDS & THALES

The legend says that when Thales visited Egypt, he measured the height of the pyramids by their shadows at the moment when his own shadow was equal to his height.

CONSEQUENCES OF THALES'S THEOREM

THANK YOU!

CNGL TEAM

Fleacă Anastasia, XI I
 Penteleiciuc Maria, XI I
 Orza Anamaria, XI I
 Dachin Andra, XI I
 Timofte Ana, XI I
 Iacob Diana, XI I

coordinating teacher Doriana Dorca



About Rhythm and Math

Rhythm is like the heartbeat of a song. It's the pattern of sounds and silences that make music flow smoothly. Just like a heartbeat has a steady beat, music has its own beat too.

Math is like a secret ingredient in the recipe of rhythm! Musicians use math to figure out the timing of notes and beats in a piece of music. They use fractions to divide time into equal parts, creating a steady rhythm.

Example of the most used note values and break:

Whole Note (Semibreve)		4 Beats	
Half Note (Minim)		2 Beats	
Quarter Note (Crotchet)		1 Beat	
Eighth Note (Quaver)		1/2 Beat	
Sixteenth Note (Semiquaver)		1/4 Beat	
Thirty Second Note (Demisemiquaver)		1/8 Beat	

In a song:

one note that lasts one beat: $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$

out of 4 beats in a measure: $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$

this note represents two beats out of the 4 beats in the measure, the fraction that represents it is equivalent to $\frac{1}{2}$

There are also breaks that have certain time values!

Half Beat (Minim)		2 Beats	
Quarter Beat (Crotchet)		1 Beat	
Eighth Beat (Quaver)		1/2 Beat	

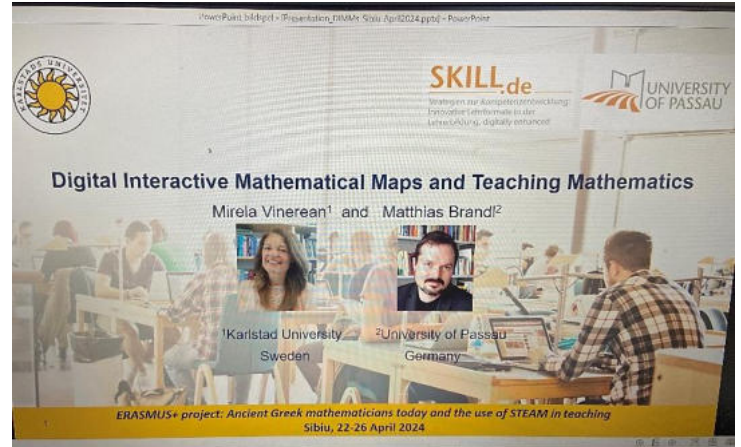
Let's also measure these groups of notes and breaks!

Now let's recreate the beats with our hands!





*Workshops: Dr. Mirela Vinerean Bernhoff,
Department of Mathematics and Computer
Science, Karlstad University Sweden
(coordinating teacher dr. Mirela Vinerean Bernhoff, Delia Șerb)*



Workshops (teachers)



*Green week activities – Workshop with recycled
Materials (coordinating teacher Raluca Filip)*





Volunteer



Activities within the Erasmus+ Project



Socialization



CNGL TEAM

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