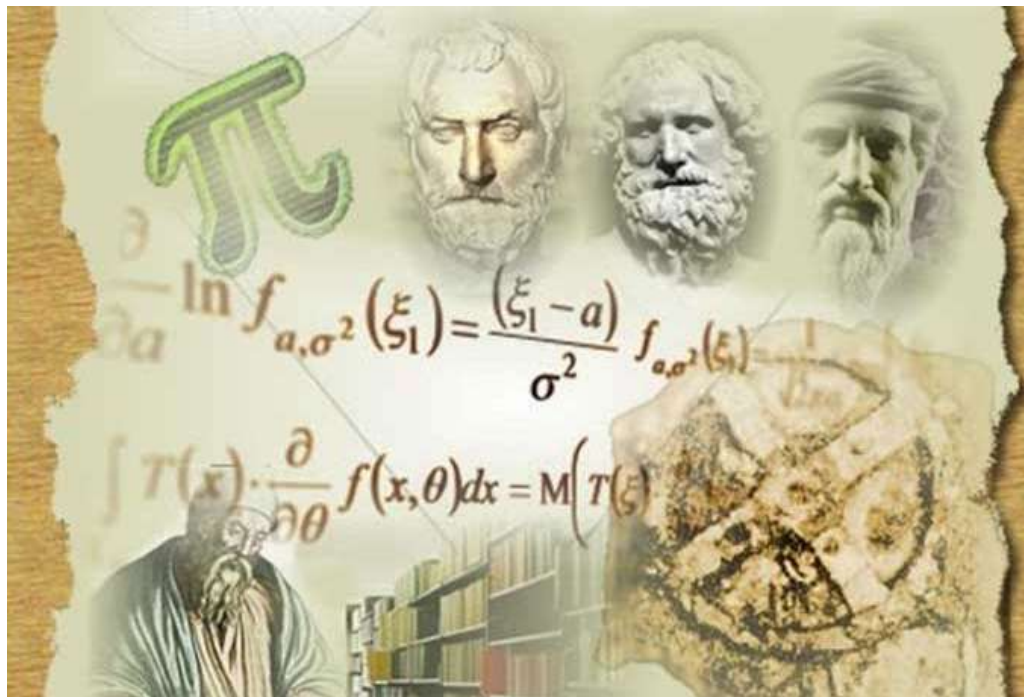
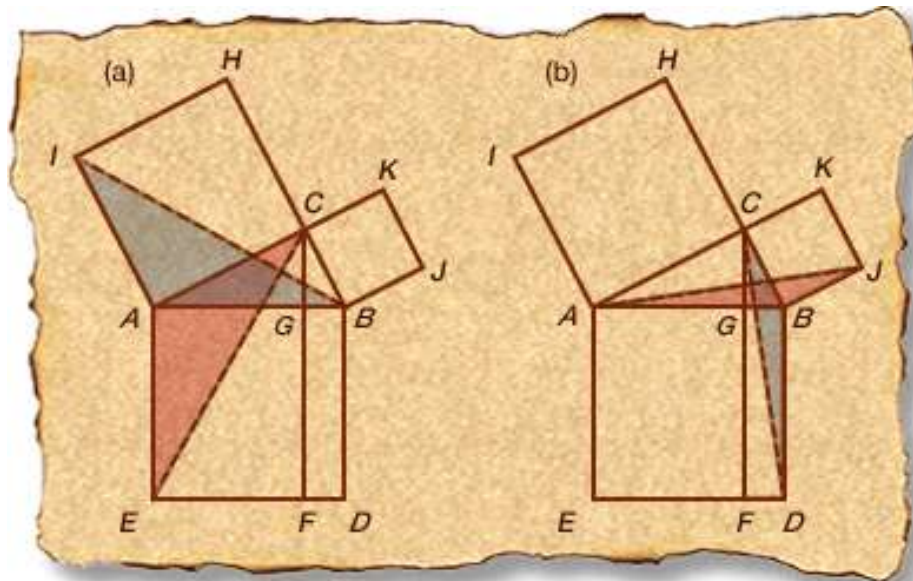


“Science in our little hands”

Mathematics



28th Primary School of Thessaloniki, Greece

Working methods

Reading, observation, trying/experimenting ideas in order to solve problems, personal experience and knowledge, desire to learn more, aspiration to have fun while learning, desire to play

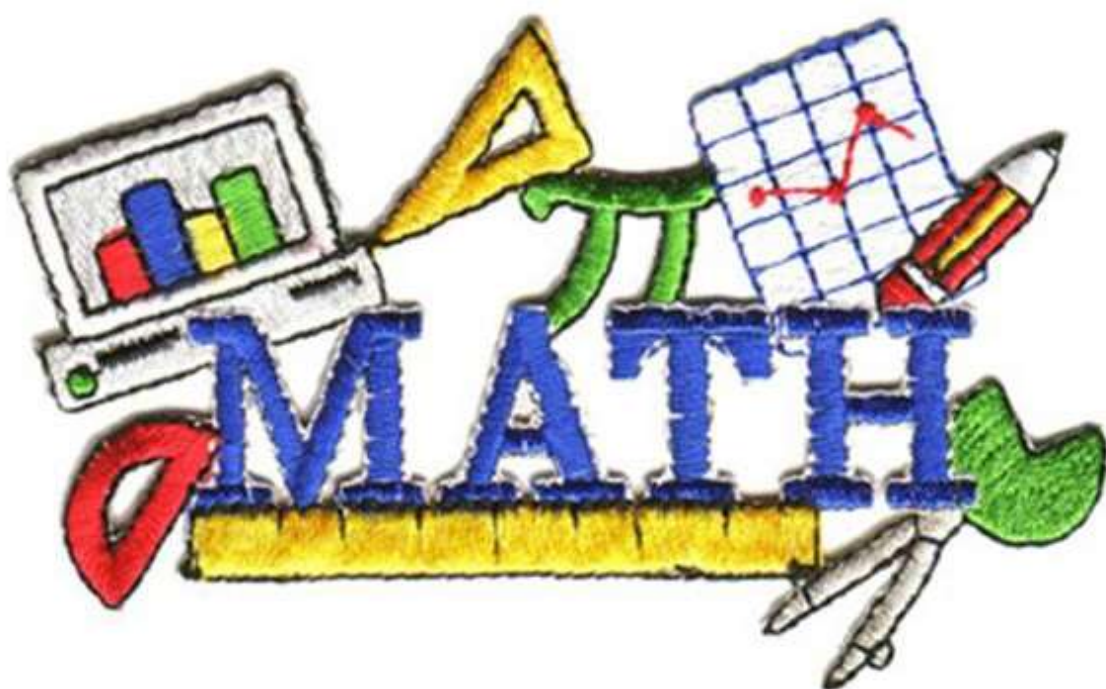
Working Groups:

Pupils of the 28th Primary School of Thessaloniki, First Grade, Fifth Grade, Sixth Grade, A group of pupils form the Special Needs Class

Topics & Themes:

Ideas of pupils based on the taught subjects, questions, interests, themes that provoke pupils to want to work, learn and have fun at the same time! All topics have been adjusted to the age groups each time.

Teachers working with the group of pupils: Bogkia Aggeliki, Georgiadou Ioanna, Kakaroglou Efi, Koutsianou Stergiani



EXERCISE 1

WHAT ARE WE DOING?

Learning the geometrical shapes

WHAT DO WE NEED?

Workbooks, hard paper, scissors, glue

Pupils of First Grade

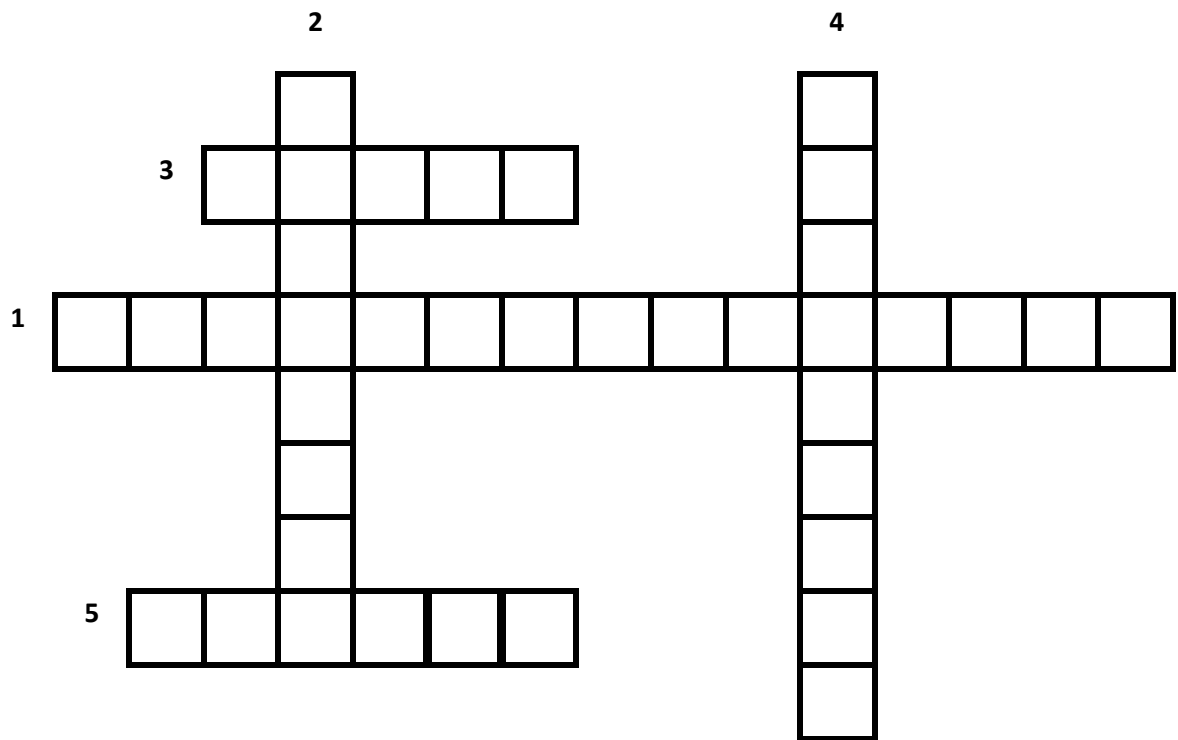
Pupils of first grade are working first of all on the school book. They see and learn the shapes' names, color shapes with the same color, draw shapes on a colored, hard paper and then cut them. Finally, pupils make "pictures" using many different shapes





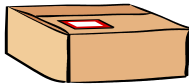
Worksheet

Write the name of the following shapes in the correct space.

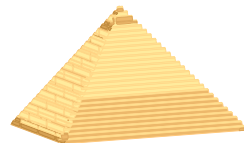


ΣΤΕΡΕΑ – ΣΤΑΥΡΟΛΕΞΟ

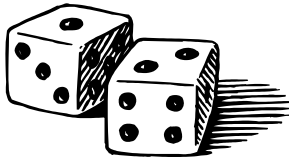
1.



2.



3.



4.



5.



EXERCISE 2

WHAT ARE WE DOING?

Playing with the geometrical shapes

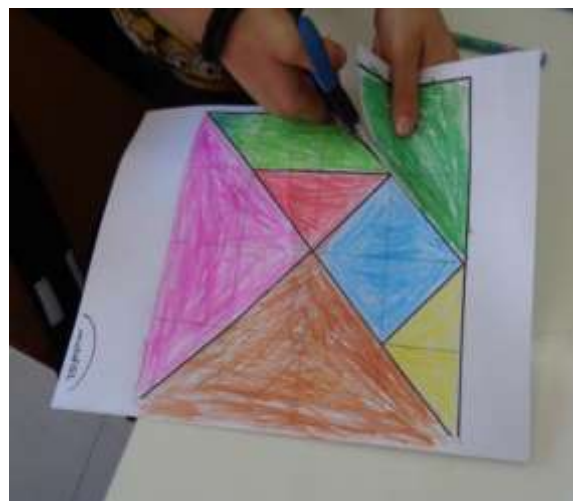
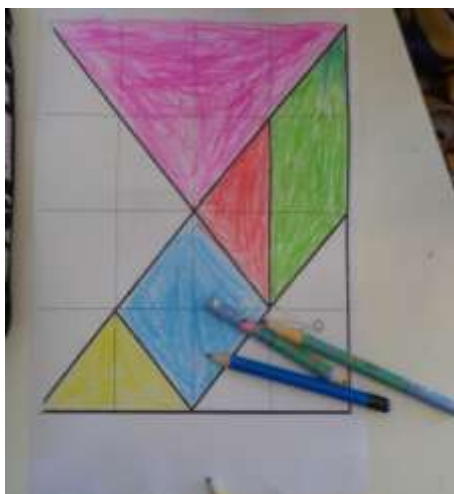
WHAT DO WE NEED?

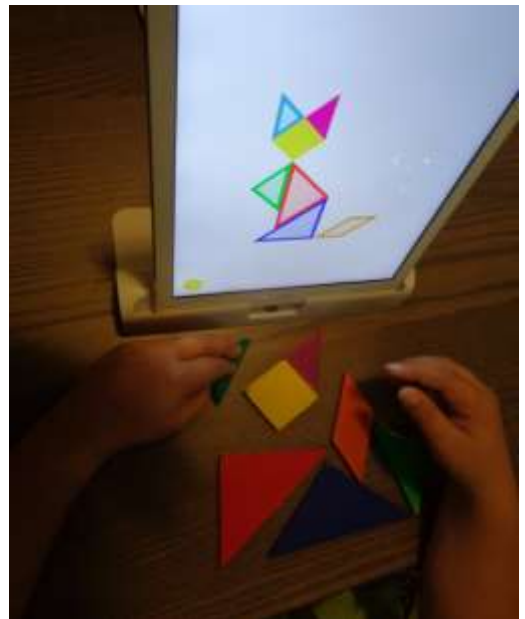
The pattern of tangram

Pupils of First Grade

Firstly, we cut out the shapes of tangram, from our workbooks. Then we try to make the different pictures using all geometrical shapes.

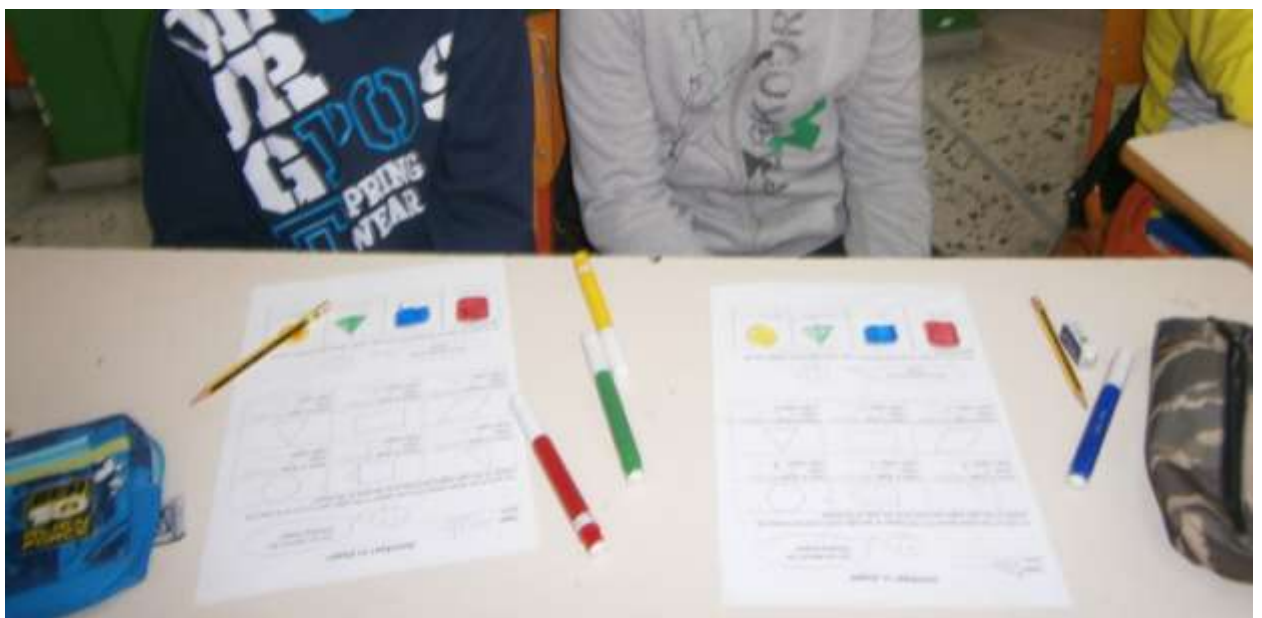
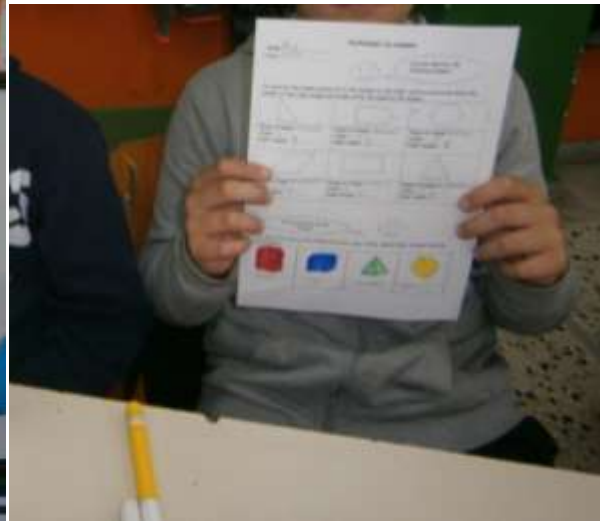
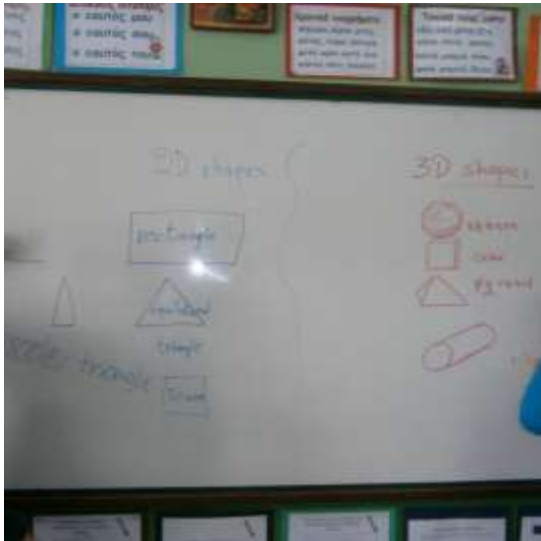
It was not very easy at the beginning, but after exercising, we succeed it!





EXERCISE 3

What are we doing?	Learning the names of shapes in English language
Steps to follow:	Pupils of Sixth Grade learned the names of the basic geometrical shapes. They read the names from the white board and then they filled in the worksheet.



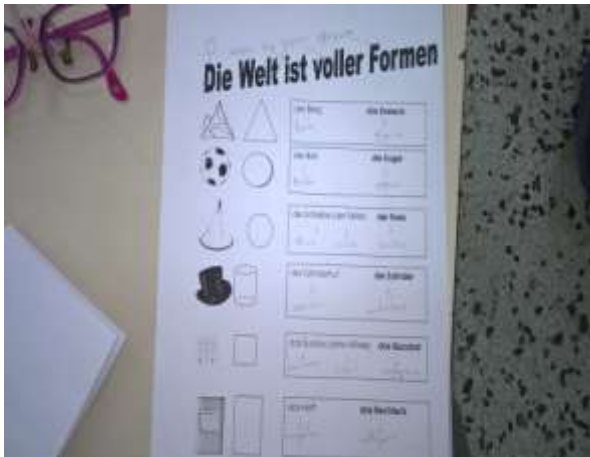
EXERCISE 4

What are we doing?

Learning the names of shapes in German language

Steps to follow:

Pupils of Sixth Grade learned the names of the basic geometrical shapes. They read the names and then they filled in the worksheet. Finally, they folded the paper into small shape-dictionaries.



EXERCISE 5

What are we doing?	Making paintings with shapes “Small Artists”
Needed equipment and materials	Workbooks, paintings, hard paper, color pencils, scissors, glue
Steps to follow:	Pupils of Sixth Grade after viewing paintings of famous painters, decided to produce their own “projects”. They drew shapes on colored hard papers, cut them and then created their own ideas into ... paintings.

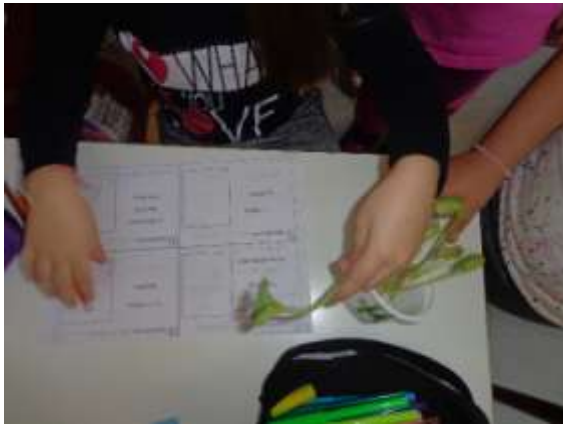




EXERCISE 6

What are we doing?	Measuring the growth of our plant
Steps to follow:	<p>Do you remember the seeds we planted?</p> <p>We wanted to see how many centimeters they gain every week.</p> <p>We kept a diary for a month. Every week we measured the plants, wrote down the new number, and by doing a subtraction we found out the growth of each plant.</p>





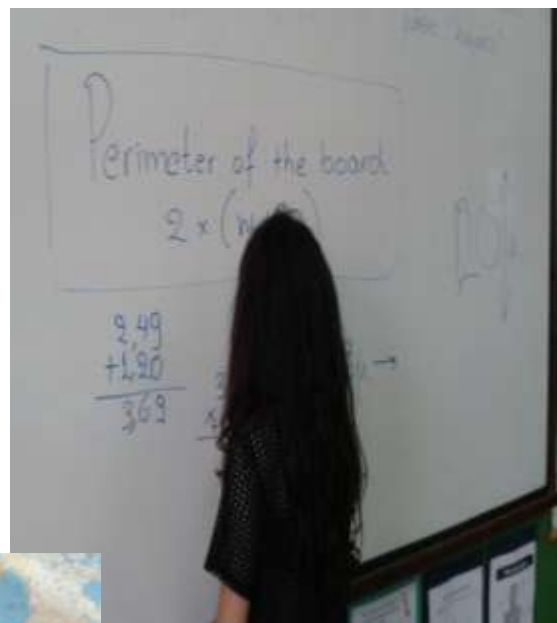
EXERCISE 7

What are we doing?

Measuring the perimeter of shapes and articles

Steps to follow:

Firstly, we discussed about what is the perimeter. We found out the 'type' for each shape. Finally, we measured some things in our classroom and wrote down everything on the whiteboard.



EXERCISE 8

What are we doing?

Matching and pairing

Steps to follow:

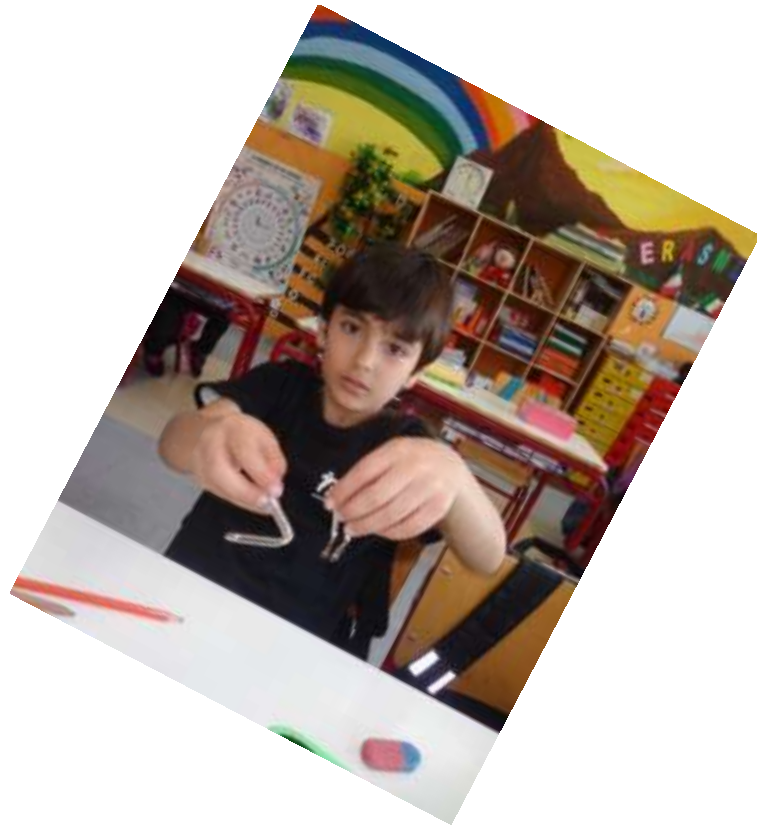
What a mess! All these shoes have lost their pair!
In a speed game, separated into groups, we try to find the pair of each shoe.



EXERCISE 9

What are we doing?	Working on mathematical issues 1) Untangling the 'tangles'
Needed equipment and materials	Pupils of First Grade try to untangle some iron shapes tangled together! It is hard, but when we did it, we were really happy!!!





EXERCISE 10

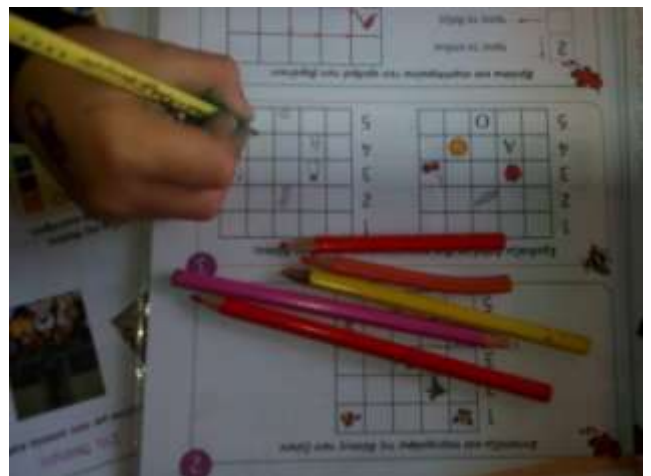
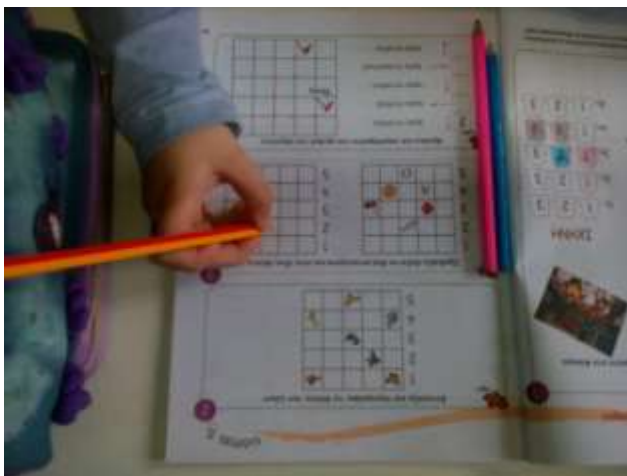
What are we doing?

Working on mathematical issues

2) Finding the correct place and moving in squares

Steps to follow:

After reading the instructions, we found the seats in a theater, and also, placed certain obstacles in a specific square.



EXERCISE 11

What are we doing?

Working on mathematical issues

3) Follow the numbers to find out the picture

4) Color the shapes following the numbers (magic picture)

5) Find your way in the labyrinths!





EXERCISE 12

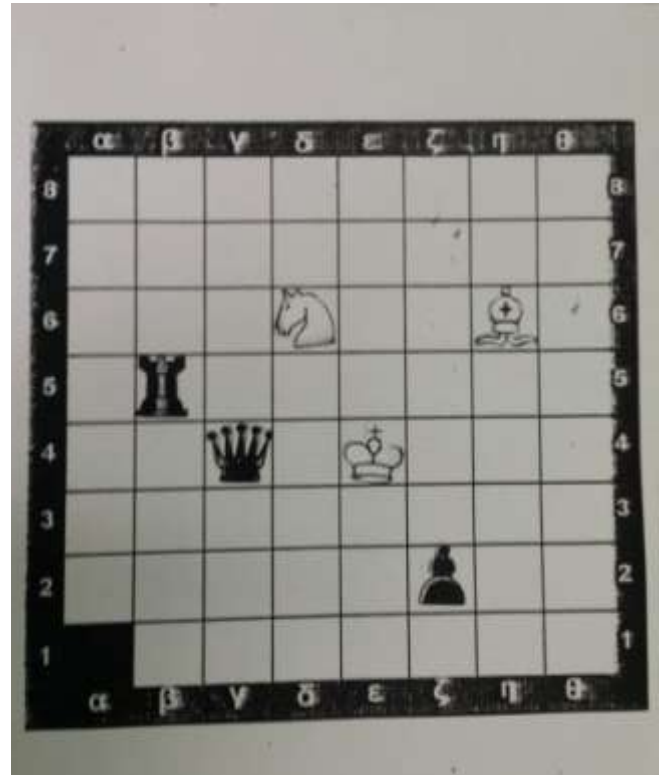
WHAT ARE WE DOING?

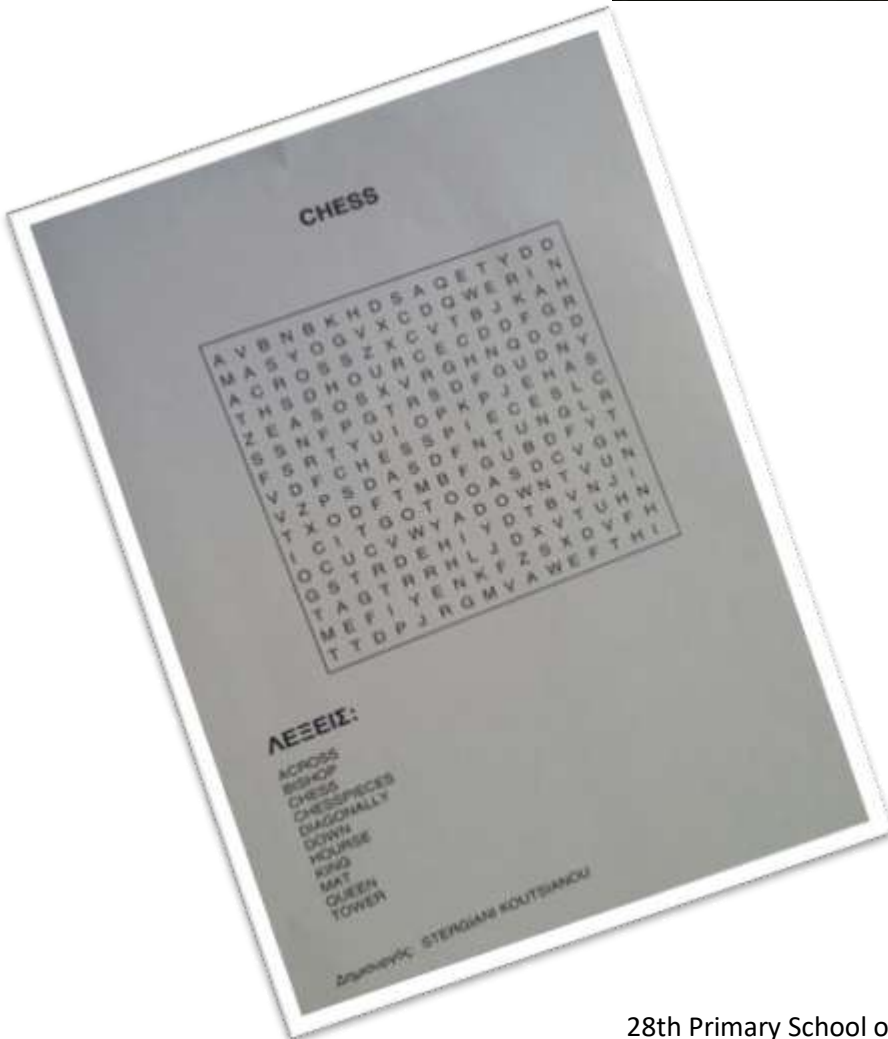
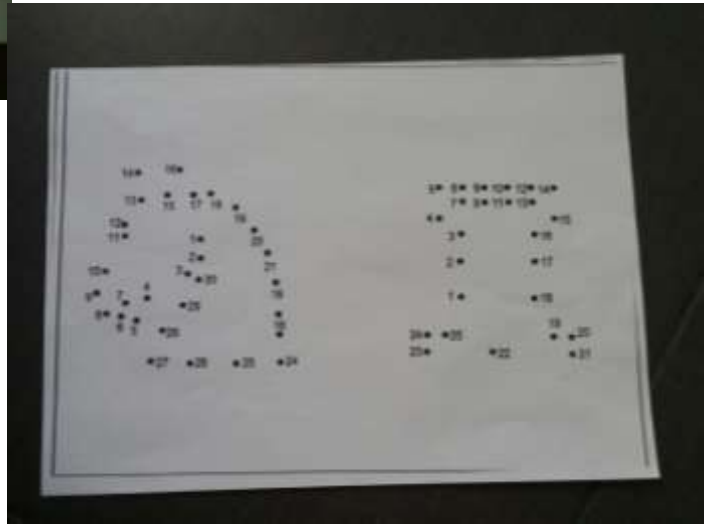
Chest

WHAT DO WE NEED?

Learning about the game.

The figures, how they move, rules, what we can and can't do, make a chest, play the game, crossword,





EXERCISE 13

WHAT ARE WE DOING?

Symmetry

WHAT DO WE NEED?

Cut a half shape with a symmetry line, drawn on a paper folded in half. Make beautiful butterflies



EXERCISE 13

WHAT ARE WE DOING?

Tic tac toe

WHAT DO WE NEED?

The hard place of eggs, plasticin
We made fields from the egg nests, 3X3, small balls from plasticin and off we go! The first one who completes a line of three wins.



EXERCISE 14

WHAT ARE WE DOING?

Lever tube

WHAT DO WE NEED?

Communicating vessels
Water
Level tube filled with water
Pencil

HOW DOES IT WORK

How can we find the straight line in a space and be sure that we are proceeding right, even when opening a tunnel in a mountain?
Learn the principal of communicating vesels.



EXERCISE 15

WHAT ARE WE DOING?

Robot

WHAT DO WE NEED?

A small group of pupils in various grades built a robot using various boxes (recycling!)
Using: glue, spray paint, fantasy...



