

# Math with Origami

Mathematics is a mental gymnastics which are not necessarily enjoyed by everyone. Through the creative teaching tool of Origami, students can be taught how to tackle this difficult subject in a fun yet effective way.

## RESULT

- Improved spatial skills
- Passage from  $\left\{ \begin{array}{l} 2D \text{ to } 3D \\ 3D \text{ to } 2D \end{array} \right.$



- Interactive activity  $\Rightarrow$  more pupils are motivated
- An alternative method for children who have difficulties with the classic system.

Note: a greater improvement in spatial visualization has been found among boys than girls (due specifically to video games).



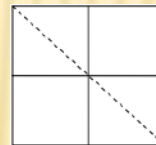
## EXAMPLE LESSON

Primary Lesson - Sailboat Model Math

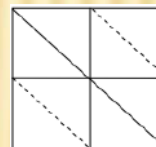
Concepts: Shape, area, parallel and perpendicular, spatial relations



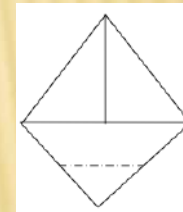
- 1) How do the areas of the new squares compare to the old ones? ( $1/4$ )  
What about the fold lines, do you recognize them? (perpendicular lines)



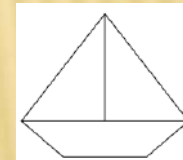
- 2) When you fold in the diagonal of the square, what kind of shapes do you have now? (Squares and right triangles)



- 3) Can you find parallel or perpendicular lines anywhere?



- 4) How does the area of the bottom triangle compare to one of the two upper triangle? ( $\times 2$ )



- 5) With the last fold done, what shape is the base of the boat? (Trapezoid)

**Conclusion:** The study, that made this observation, suggests that origami is even much effective than standard method when learning geometrical concepts, and then that is more playful.

