Grades 1-4 (S), 5-8 (S)

Duration: 15 min

Tools: one Logifaces Set / student

Pair work

Keywords: Symmetry

# 502 - Mirror Shape





## **MATHS / TRANSFORMATIONS**



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### **DESCRIPTION:**

Students are working in pairs. Each student gets one Logifaces set.

One student builds an object with some of the blocks, the other student tries to build the reflected object. After they finish, they can place a pencil or paper between the two objects to represent the plane of symmetry to check their work.

Then they swap roles and repeat the task.

POSSIBLE EXTENSION Students observe whether the same blocks were used for the original structure and its symmetrical image.

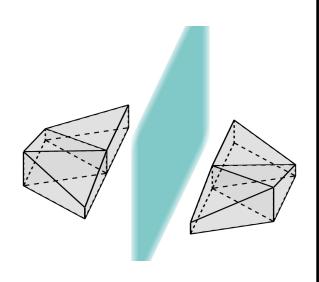
### SOLUTIONS/EXAMPLES

See the figure for an example.

Answer for the possible extension:

Blocks 123 and 132 are each other's mirrored images, while all the other blocks are the mirrored images of themselves. Hence if the original block is 123, the corresponding block in the mirrored image is 132 (and the other way around), while in every other case the same block is present at the corresponding positions in the original and the mirrored image.

When the structure contains an equal number of the blocks 123 and 132, then the same blocks are used for the symmetrical image. Otherwise the numbers of blocks 123 and 132 differ in the structure and in its symmetrical image.



#### PRIOR KNOWLEDGE

Symmetry in 3 dimensions

## **RECOMMENDATIONS / COMMENTS**