



<p>Name:</p> <p>Date:</p> <p>Tools: one Logifaces Set / class</p>	<p>531 - 3D Congruence in GeoGebra</p>  <p><b>MATHS / TRANSFORMATIONS</b></p>	 <p>LOGIFACES METHODOLOGY</p> <p>Erasmus+</p> <p><b>STUDENT</b> Logifaces</p> <p>2019-1-HU01-KA201-0612722019-1</p>
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#### DESCRIPTION

Students choose a block from the set and draw it in GeoGebra 3D (see exercise [527 - Coordinates in GeoGebra](#)). The task is to perform and examine the following transformations in GeoGebra.

#### LEVEL 1

- Draw an arbitrary vector and use the Translate by Vector Tool to translate the block by that vector.
- Draw an arbitrary line and use the Rotate around Line Tool to rotate the block around an axis, through a chosen angle.
- Draw an arbitrary plane and use the Reflect about Plane Tool to reflect the block about the plane.
- Draw a point and use the Reflect about Point Tool to reflect the block about the point.

Students can choose different vectors, lines, angles, planes and points. They can play and examine the different settings.

LEVEL 2      Discuss which transformations reverse the orientation and which transformations preserve the orientation.

#### SOLUTION(S)