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| Title  | Mosaics |
| Subject(s) | Mathematics |
| Learning goal(s) | * Explore patterns that appear in ancient mosaics.
* Being able to identify the unit-shape (the unit that is repeated in a pattern)
* Being able to identify the various types of geometrical transformations that occur on the unit-shape in the creation of the composition (translation, rotation, reflection)
* Being able to apply the different geometrical transformations to designing students’ own mosaics.
* Being able to describe mosaics with the use of accurate mathematical terminology, like “translation *x* units to right/left/up/down” (in relation to imagi­nary horizontal and vertical axes that intersect at the left down edge of each shape), “rotation of *x* degrees, from the right to the left” or “from the left to the right” (in relation to an imaginary point), “reflection” (in relation to an imaginary horizontal, vertical, or diagonal axis)
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| Time | 4 lessons (50 minutes) |
| IBL | √  |
| Achievement | √ |
| Context | √ |
| Culture | √ |
| Fundamental Values | Collaboration. Creativity. Cultural and intercultural awareness. Appreciation and respect the human aspect of mathemat­ics. Feel part of an inquiring community. |
| SSI/RRI | The need of using mathematics and mathematical precision and reasoning in creating aesthetic and harmonic artefacts in sculpture, architecture, ceramics and drawing, that reflect the uniqueness of each civilization. |

**Source:**

Papageorgiou, E. & Xenofontos, C. (2018). Discovering geometrical transformations in the ancient mosaics of Cyprus: An instructional approach to Grade 6. *Australian Mathematics Teacher, 74*(2), 34-40.