

'Origametria'

Using Origami as a Learning Tool to Teach Geometry

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Abstract

'*Origametria*' is made from the words 'origami' and 'geometry'. It is a teaching program which uses origami to teach curriculum geometry from Grade 1 upwards.

In the 2005-6 academic year, an estimated 11,000 children in 75 schools throughout Israel studied *Origametria* for an hour every week, taught by 45 specialist teachers trained by the IOC. After the IOC teachers introduce new geometric topics with *Origametria*, the school mathematics teachers continue the teaching of these topics.

The *Origametria* structure in the classroom is:

1. *Geometric insight* – discovering concepts from observation of the final model
2. *Investigation* – understanding concepts during the process of folding
3. *Relationship Qualities* -- assessing the concept in different ways with the folded paper (the model), or during the folding process in accordance with the concept learnt.

Origametria is developed from earlier IOC origami programs, which focused on improving basic learning skills and a child's self image through the learning of origami. It is the combination of learning skills, the improvement of the self image and the teaching of geometry that makes *Origametria* successful.

Geometry is often regarded as a dull subject. However, *Origametria* is fun, so children are motivated to learn. Every child should complete a model in a lesson, because this is the motivation to attend the next lesson.

In the presentation, Ms Golan will describe the background, development and educational philosophy of *Origametria*, the IOC method of teacher training and evaluations of *Origametria* given by non IOC teachers of mathematics. Several specific examples of *Origametria* will be described in detail.