

## Emphasis on Mathematical Sciences at Mankkaa School

*Mankkaa School is a lower secondary school with a class emphasising on Mathematics and Physics on each grade. The classes with emphasis on mathematical sciences have one additional weekly lesson more than other classes at the school.*

*The total of 20 pupils are selected into the class through an entrance exam during their 6th grade. Information on the exams can be found on the website of Mankkaa School or Espoo. Studying in the class requires strong motivation and commitment.*

### Mathematics

During the 7th and 8th grade the pupils are taught the same syllabus as other classes following the school curriculum but with advanced and extended material. The themes focused on are accurate mathematical expression, logical thought and the systematics of solving mathematical problems. Starting from the beginning of the 7th grade the concepts used in the advanced syllabus on Mathematics in upper secondary schools are incorporated into the teaching.

During the 9th grade the pupils are introduced to wider material outside the basic syllabus cooperating with the upper secondary school of Etelä-Tapiolan Lukio. During the spring of the 9th grade the pupils also study the upper secondary school course 1 in advanced syllabus on Mathematics and take the course examination at Etelä-Tapiolan Lukio.

The pupils are assessed in Mathematics with two grades: basic syllabus exams determine the grade of Mathematics in the report card. The grade of the Emphasized Mathematics is comprised of a basic exam and a more demanding exam at the ratio of 2:1. The time given for completing the exam is longer than for other exams.

### Physics

As Mathematics, Physics is also taught following the basic syllabus and the curriculum with extended additional material. The pupils are taught to form entirety focusing on causation and the background of natural phenomena. The evaluating of Physics is similar to that of Mathematics.

### Optional subjects

On the 7th grade it is voluntary for the math-class pupils to participate in the Christmas Gala project, which all of the other 7th grade pupils participate in for one additional lesson a week.

In the spring of the 7th grade the pupils choose two "long" subjects that they will study for the following two years and due to the additional Mathematics lesson they will choose only one "short" subject for a year. They will choose another short subject for the 9th grade in the spring of the 8th grade. However, pupils who study two A-languages will have a choice of only one long subject, no short subjects at all.

The optional subjects aimed specifically at the pupils in these classes are Philosophy, Astronomy and Experimental Physics. During the 8th and 9th grade the following subjects are available only as optional subjects: Arts, Crafts, Home Economics and Music.

- About Mankkaa School in English: [www.mankkaaya.fi/course/view.php?id=5](http://www.mankkaaya.fi/course/view.php?id=5)