Mathematics

In Mathematics, you will develop your problem-solving skills and your ability to present logical arguments.You will be better able to use what you learned in Mathematics in real life situations in everyday life and work.

What will I learn in Mathematics?

Some of the things you will learn include:

- sets
- number systems
- algebra
- functions and graphs
- trigonometry
- geometry
- statistics
- applied arithmetic and measure.

How will I learn Mathematics in school?

Some of the things you may do with your teacher and your classmates are:

- use computer simulations
- do hands-on activities with real-life materials
- use a textbook and answer maths problems
- take part in project work.

Some other things that will help you learn in class are:

- asking questions
- solving math problems for yourself
- keeping your work organised in an exercise book or file.

How can I learn more about Mathematics outside of school?

Some of the things you may do are:

- take part in mathematical challenges such as Prism or Hamilton Maths Challenge
- improve your mental arithmetic by using maths computer software
- get involved with some of the activities that are organised within the community for National Mathematics Week

- enter a project in SciFest or The BT Young Scientist and Technology Exhibition.

How will I know how I am getting on?

Your teacher will let you know:

- what you have done well
- how you can improve your work.

Other things you may do are:

- ask a friend to look at your work
- try some questions from past examination papers
- try some of the revision quizzes.

What is the Mathematics Junior Certificate exam like?

Ordinary and Higher level students will sit two written exam papers each consisting of six questions. Foundation level students will sit one written exam paper consisting of six questions.

You can take the exam at Higher, Ordinary or Foundation level.When the time comes to decide, your teacher will help you choose the level that suits you best.

Is learning Mathematics anything like what I did in primary school?

You will already have learned about number, algebra, shape and space, measures and data in mathematics in primary school. Junior Certificate Mathematics aims to build on this. Many Junior Certificate Mathematics teachers use practical work and real-life materials in their classrooms. Students often take part in investigations and project work. This is similar to the way you learnt Mathematics in primary school.

Will Mathematics have anything to do with other subjects I will be studying?

You will find links with several subjects, such as Science, Geography, Business and the technology subjects, where a good knowledge of mathematics will be of great value to you in working out equations, distances, calculations and formulae.

How will Mathematics be useful to me?

Studying mathematics prepares you for business calculations, for handling your money sensibly and for courses in sciences, engineering and technology.You should see mathematics as an opportunity to strengthen your thinking skills.

Will Mathematics be very different after the Junior Certificate?

In Leaving Certificate Mathematics, you will meet the same topics as you did in Junior Certificate, but to a greater depth, as well as some extra topics.

[Information sourced from ncca.ie]
For Maths at Junior Certificate level it is expected that you know the topics that appear in the paper.

Paper 1
Paper 1 at Higher level has 6 questions and all six must be attempted, the paper carries 300 marks, an equal amount of time should be spent on each question. Paper 1 generally consists of two questions on arithmetic, rationals, decimals and square roots, there are also two questions on Algebra and two questions on Quadratic equations.

Paper 2
Paper 2 at Higher level introduces the new project maths syllabus. The sample paper is available on www.examinations.ie. The paper has seventeen questions and covers strands 1 & 2 of the new project maths. Strands 1 and 2 cover probability and statistics and Geometry and trigonometry.
Strand 1 of project maths covers the following:

- Counting
- Concepts of probability
- Finding and collecting and organising date
- Representing data graphically and numerically

Strand 2 of project maths covers the following:

- Synthetic geometry
- Transformation geometry
- Co-ordinate geometry

Strand 3 of project maths covers the following:

- Number systems
- Sets

This new strand won't be on the exam until 2014
Strand 4 of project maths covers the following:

- Generating arithmetic expressions from repeating patterns
- Representing situations with tables and diagrams and graphs

This new strand won't be on the exam until 2014

More information on project maths can be obtained on http://projectmaths.ie