

## Mathematics

*“Pure mathematics is in its way, the poetry of logical ideas.”*

(Albert Einstein)

Mathematics teaches logic and order. The discipline of mind that children develop in a Maths class can carry over into everyday life. Maths can also provide a vehicle through which critical-thinking skills are put into practice and refined.

Mathematics is an essential element in the curriculum of any learner who intends to pursue a career in the physical, mathematical, computer, life, earth, space and environmental sciences or in technology. Mathematics also plays an important role in the economic, management and social sciences. Learners wishing to offer Physical Science and Accounting at grade 12 will be required to offer Mathematics.

The learning achieved in Mathematics up to grade 9 provides an essential base from which to proceed into the demands of Mathematics in grades 10-12 :

- Numeracy is taken further, working in more symbolic ways.
- Engagement with shape and space becomes more formalised.
- The methods and uses of statistics and chance are dealt with in greater depth.
- How Mathematics can contribute to an understanding of financial issues is taken beyond dealing with budgets.
- Mathematical modelling becomes more prominent.

To achieve success in Maths, a learner needs to :

- ✓ achieve good marks in grade 9, as these outcomes form the base of topics covered in grade 10-12;
- ✓ love the subject;
- ✓ enjoy a challenge;
- ✓ be extremely hard-working;
- ✓ have perseverance.

### **Maths Competitions and Olympiads**

In 2009 the St. Dominic's girls became part of the **Tour-de-Maths** community. Several schools from the East Rand, Johannesburg and Pretoria meet two to three times each term. At each meeting, a pair of learners from one school teams up with two learners from another school in a random draw. The team of four then attempts an Olympiad type question paper. The answers are marked and prizes are handed out to top achievers. There are also several lucky draws for prizes such as Casio calculators and watches. Any learner from grade 8 to grade 10 may participate.

We also encourage our learners to participate in the **South African Mathematics Olympiad**.

The SAMO is the biggest Olympiad in the country.

It is well known that mathematics competitions generate a lot of enthusiasm and curiosity for the subject. The concept of mathematics competitions is becoming more and more important.