

# **How to excel in mathematics**

Generally learners develop a negative attitude towards mathematics due to the lack of general basic mathematical knowledge and also due to the lack of a solid foundation in this subject.

There are various reasons for this, some of which are:

- **Learners do not do their homework**
- **Learners do not catch up on work missed due to absence**
- **Learners misunderstand work due to lack of concentration or focus**
- **Learners lack practice – this is the most important reason**

## **WHY PRACTISING MATHS IS ESSENTIAL**

- **Learners will come across variations in certain topics that won't necessarily be dealt with in the initial lessons in class.**
- **Most variations will only be encountered while attempting the homework and working through past exam papers.**
- **Variations give the brighter learner the opportunity to express their creativity**
- **The average or weaker learner will encounter the difficulty at home and not face it in the exam room for the first time**

Thus, when the solutions to the variations are provided – learning takes place after the struggle with the exercises at home. However, if the learner does not attempt the homework then the learning that takes place the following day won't be embedded and remembered for tests and exams.

**So, in order to excel in mathematics, all learners have to go through the process of:**

- **Paying careful attention and learning the content in class**
- **Attempting the homework with all its variations**
- **Making mistakes and learning from their mistakes when the solutions to the homework are provided**
- **Re-doing all sums that were incorrect while doing the homework until mastered by using the teacher's answers as reference**

The above process must be an everyday practice.

Instead of the above process, learners generally leave their 'studying' for the last minute and 'glance over' their work the night before a test or exam instead of sitting with pen and paper and re-doing all the sums especially those they got incorrect while attempting their homework.

In conclusion, in order to succeed in Maths learners need to spend at least 45 minutes everyday attempting Maths homework and 45 minutes practising work done earlier in the year or working through past exam papers.

### **HOW DOES THE MATHS EXCELLENCE WEBSITE HELP TO ADDRESS THESE PROBLEMS**

On the Maths Excellence website – **www. mathsX.com** learners in **Grades 10, 11 and 12** who lack the basic background knowledge have access to **364** comprehensive **video lessons, notes and tests** with **full solutions** where they can fill the gaps on topics missed out on or misunderstood in class. Parents can also monitor their children's progress online as a progress report is available of all the test scores. These tests can be repeated until a mark close to or above 80% is reached.

On this website learners also have access to **past exam papers with full solutions** from **2008 to 2015** not only in maths but for all other matric subjects as well.