

A Guide for Studying Maths and Science

Maths and Science are different than any other subject. They're objective, employs specific procedures, involves symbols and formulas, and it have a vocabulary all of their own. Consequently, the study skills you need to succeed are also unique. The following are a few of the most important study skills to remember.

- Unlike some academic subjects, you can't excel or even become proficient at maths or science by just listening and reading. **They require actively doing.** Consequently, to learn them you must do all your homework and assignments.
- Maths and Science are very sequential subjects. **What you learn one day builds on what you learned previously and is required to support future learning.** It's like building blocks. If you miss any of the building blocks you can't progress. This is why it is so easy for students to fall behind if they miss school or don't do their homework on time. While cramming can help you pass some types of tests it will do very little to help you pass your tests.
- Maths and Science becomes increasingly complex over time. Consequently, many students have to **spend more time studying them** than they do other subjects in order to succeed.
- Maths and Science involve so many formulas, equations and procedures that it can be difficult to remember everything. Don't try and memorize everything. Instead focus on developing a good understanding of all the major concepts initially. **Mastery of concepts is more important than memory of facts.** In Science, however, there are a larger number of facts that do have to be committed to memory.
- Many mathematical and scientific procedures for solving a problem can be used to solve other problems. As you progress in each subject try and apply what you've learned previously to each new problem you encounter. **Learn to apply what you have learned to different situations.**
- Both these subjects have a **vocabulary all of their own.** Additionally, many commonly used words have different meaning when especially with maths. Take the time to create a maths vocabulary log where you note down and define each new maths vocabulary term you encounter.
- Many students quickly come to the conclusion that they just aren't cut out for maths or science, or that they just can't understand it. This is very rarely the case. **What they require is patience, discipline, and dedication.** If you dedicate yourself, believe in yourself and put in the effort you will make it through -- and you might even find that you really like it.
- One last tip. **Ask for help if you need it.** Use your teacher, other students or a tutor if necessary. Learning math is much easier if you'll take advantage of the knowledge and experience of others.