

Becoming an independent learner of GCSE Mathematics

- Do not think about *doing* Mathematics; think about *learning* and *understanding* Mathematics. Long term success in the subject can really only be achieved if you are determined to *understand* and *not simply do* the subject.
- Treat your homework as a learning opportunity, not just as a chore to be done.
- Your exercise book should become a valuable revision resource. For example a book that has " $x^3 \times x^5 = x^8$ " written in it will be a far more valuable learning resource than one that just has " x^8 " written in it.
- Enjoy being stuck; being stuck is a great opportunity to learn. Things to try when you are stuck might include:
 - Working through any relevant examples in your exercise book that you might have done in your lesson. Making sure that you try to understand each step of the working.
 - Your text book is an incredibly valuable resource. Make very good use of it, it has loads of examples to help you. So find any relevant examples in your text book and work through them line by line. Do not just follow what they have done, but try to understand why they have done what they have done.
 - Make use of www.MyMaths.co.uk . Try to find a lesson on a similar topic and assess yourself using an online homework. Do not just concentrate on what you have to *do*, but make sure that you *understand* why you are doing.
 - You may have a parent or an older brother or sister who can help you. Do not just let them take over, but ask them questions until you can not only do the homework but understand it as well.
- When you have finished your homework try explaining what you have learnt to somebody else. If you can do this than you will have achieved a deep understanding.
- This sounds really tragic, but it works. When you go to bed at night reflect on the Mathematics that you learnt and try to explain to yourself why it works that way and not any other way.