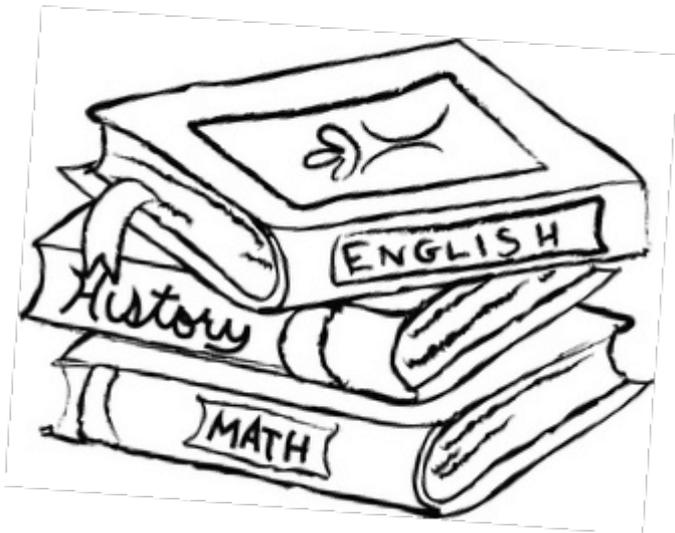


TEN WAYS TO REVISE FOR YOUR MATHS EXAM

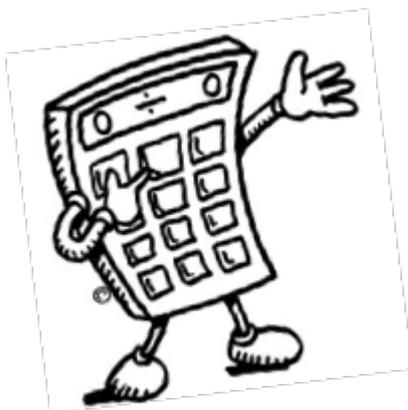
Few months before the examination, secondary students sitting for the GCSE or its international version IGCSE will begin cramming in a desperate attempt to score higher. Among the many subjects that are on the top of the revision, the list is Maths.

We get it that Maths is life. Everything around us is Maths. We get that too. But we also know that Maths is challenging and it could be harder for some (students) who panic right away when they see numbers.



However, the source of success of students starts from day one of preparation. The extent to which one prepares will define failure and success. Many a time, students stress over little details that they missed out a significant amount of time to revise harder questions before the examination comes in full swing.

Everyone has that moment when they simply say 'enough is enough' to Maths. This is unless you are blessed with what my students call calculator's brain.



This is the reason why it is worth considering new techniques in revising to aid students not only in retaining the lessons in their head but also reducing the stress level they have to go through each

exam season.

The importance of passing the GCSE or even the A-levels cannot be emphasised enough – (it) actually defines their future—a classification in the final level of high school and in many countries, the result has a direct impact on degree choices and college admissions.

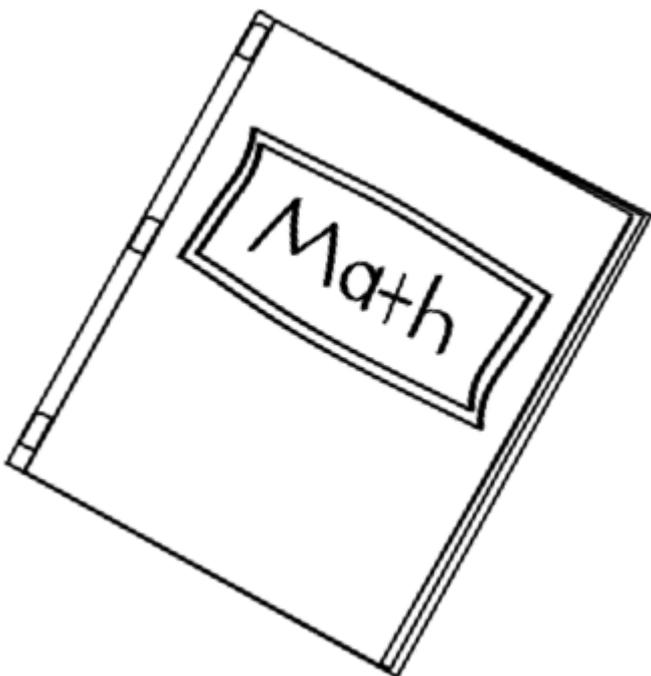
Thus, organising both time and sticking to practical revision techniques will get a student there. At the same time, it eases worries and help achieve good results.

Of course, like any other things, anyone who wishes to be good at Maths can do so with few tips and tricks. Here are my recommendations:

1. Don't delay with maths exams

Lectures could be exhausting. That could be true but they are also needed for you to understand the concepts better. So try to pay attention to the details when your teacher is making numbers look like magic on the board. Afterwards, go back to your paper and start using the techniques taught in class. One of the common errors is to let the knowledge sit for a while – you might forget how it's done.

It is important to remember that laying the foundation of learning is more important than any revision techniques. Maths has basic formula one must master first in order to revise better such as (knowing) the multiplication table, the four operations (addition, subtraction, multiplication and division), a base set of formula in algebra as well as geometry among others. Knowing them in the back of your head will get you through the examination just fine. I call the formula the 'magic wands' of Maths. (And) Yes, you are free to use them.



2. Use available resources

An inventory of what you have on hand is important. Take note of how much time you have left before the examination and calculate the amount of revision you need to do. Obviously, your Maths textbooks and yes, even your calculator are two of your most needed resources. So instead of delaying solving that Maths problem, take a look at the process outlined in your textbook. They are always easier to understand than the teacher delivering a long lecture anyway. For GCSE or even A-Levels, the past papers and mark schemes are important tools as well. They provide you not only with a better picture of how the exam looks like but the best way to revise with varied problems spread throughout different examination seasons. If you get lucky enough, you might get the same question in the actual exam. So, it is advisable to compile them and answer them diligently as part of your revision strategies.

Compiling results of your revisions will also allow you to self-check your progress. However, no matter how many resources you have to finish, trying to take in last (seemingly) important information a day before the examination is a futile idea. Avoid cramming at all cost. Cramming brings in plenty of bad things; stress and anxiety at the top ranks.



3. Keep up-to-date with the class

Nothing beats keeping up to date with first-hand information. As a student, try to take in as much information and tricks during lecture hours. Your teacher is there for a reason and you might want to take advantage of it. To do this, you might want to take down notes while in class and try to redo what the teacher has done a little later, during revision time. It is in real class that various problem-solving methods are fully explored. I know plenty of Maths' teachers who try both the long method and short cut method in class for students to know which one works for them. Take advantage of these sessions. In addition, while it could be tedious, sleeping in class when you are just a few months away from the examination schedule is not a luxury you can take. If you don't pay attention

in class, you will have to study double time when the teacher is gone. Of course, answering past papers is also a good way to revise and be up-to-date but may not work well if you missed out a huge part of the 'human' transfer of information – teaching and lectures.

4. Practice makes perfect

That's a cliché! True. Even if it sounds boring, there is no other better way but to keep practising. Researchers suggest that having just enough for regular practice makes one take control of his learning. Just do not overdo it. Studies show that distributed learning is more practical and effective than concentrated learning. Dr Dave Haylock, a psychology lecturer at Newman University concluded that revising a little but often works better especially for young people. He explained that a daily revision of one-hour is a better approach than studying for straight five or 6 hours a day before the exams. The same revision strategy also saves students from various forms of anxiety and panic disorders.



It is no surprise to know a routine can be boring too! Don't give up. Make sure you find varied ways to make the method of 'practising' more fun. How to do this? Perhaps, work with a classmate instead of doing (Maths) problems alone. Always refer to the mark scheme if you have no means of consulting your teacher. I have seen many students who even work with a Mathematician on Youtube. With the advent of technology, you can find so much information or even online teachers who post lesson specific videos online, for free. The point is to find ways that work for you.



5. Change the way you learn

Everyone has his or her own learning style. There is no way we can all enjoy the same kind of apple. Hence, it is important to know your own learning style or as American psychologist and cognition specialist Howard Gardner puts it, multiple intelligences. Knowing this will ensure that you are using all possible means during revision time.

Even finding a comfy space to revise is a practical approach too. A comfortable seat and a well-ventilated space are a must. While we are at it, try to avoid things that will affect your learning such as your bed or even the TV. Perhaps, making a cheat sheet where the formula is kept, mathematical vocabularies you need to remember as well as possible issues (what are the mistakes you need to avoid) will help you revise better. A little reminder is always helpful.



6. Identify and Accept Weaknesses

We all have our weak spot (or sometimes spots) so there's no reason to be ashamed to admit you do not know or understand something. Again, it is all right to say 'enough' and begin to ask help from someone who knows. Once you know which aspect of Maths you are having a hard time on, it would be easier for you to revise. Knowing such information (no matter how embarrassing it may sound) will bring you to finding ways to be up-to-date and perhaps change the way you learn.

After identification of the problem, you now need to do the following: First, focus your energy on that problem. Understand the variables that make it complicated. Is it something you have encountered in class? Is it something you never heard of? Is there a way to simplify the problem?. In GCSE, the examiner will consider the final answer so it does not matter if you use a totally different method from what you were taught to in class.

Second, never give up until you get it right. Work on it until you get it right. If one method fails, there are many other ways to get to solve it. Remember the short cuts your teacher taught in class? This is probably the best time to use them, and lastly, find help if needed. As a teacher, there is no way I will turn down a student who is seeking help to revise for a test. Students who initiate a talk with a teacher about a difficult topic are always admirable. This is better than claiming to understand when you really do not. Speak up, there's no harm in that. Finally, retreating from a problem isn't a choice you can have—at least with Maths.

7. Know the schedule

This is important information to make sure you know when exactly is the GCSE or A-Level exams and start working within the timeline. The schedule is normally published 6 months before the exam series so it is imperative that you ask your teacher or the school the exact date. This does not only affects your revision schedule but also possible family holidays that may get in the way of the exams. Once you know this information, ask yourself how much time do you have left and divide the lessons you need to revise based on that schedule. The last thing you want to do is 'cram' to finish a few more chapters' days before you sit for the exam. Again, we all know this method does not work so don't take the risk. Once you understand and made your schedule, stick to it!



8. Stay calm at all times

As a teacher for many years, I have seen students who either fell sick or faints during the day. This is no exaggeration. This is the reason why preparing well long before the D-day is a necessity. Do not just stick to your guts –it's not even a multiple-choice exam! If you answered enough past papers then you are probably ready, mentally. You have seen the format and how questions are asked so there's no reason to be surprised.

Psychologists suggest that visualising yourself in the exam room, feeling confident in answering questions well, helps. I remember visiting the room where I will be sitting for the exam when I was in high school. That way I get to be familiar with the atmosphere of the room. During the exam day, it is important to remind yourself of the following:

- Fixed Time

There is a fixed time given for each paper, use it well. Do not turn the paper right away or be agitated to rush answering the questions during the first few minutes. Once you are done, take a deep breath, take your eyes away from the exam paper for a few moments and then go back and look at the questions again. You might be able to see the paper from a different perspective, and perhaps, see details you might have missed out.

- Start Slow

You know that harder questions take time to begin to answer the easy questions first. Getting one item done after the other during the first few minutes will build your self-confidence in answering the harder questions. Also, no matter what happens, attempt to answer ALL questions.

- Stay Calm

Stay calm even if you do not fully understand the question. When this happens, set it aside first and do the other items. Then go back to the difficult question after some time. If it is the only question left, take a moment to breathe deeply, take a moment of rest and then go back to it.

- Visual Learners

For visual learners, sometimes it helps to visualise the moment you're your teacher was discussing a particular question. This will help you remember the formula used and then follow the pattern.



9. Take care of your well-being

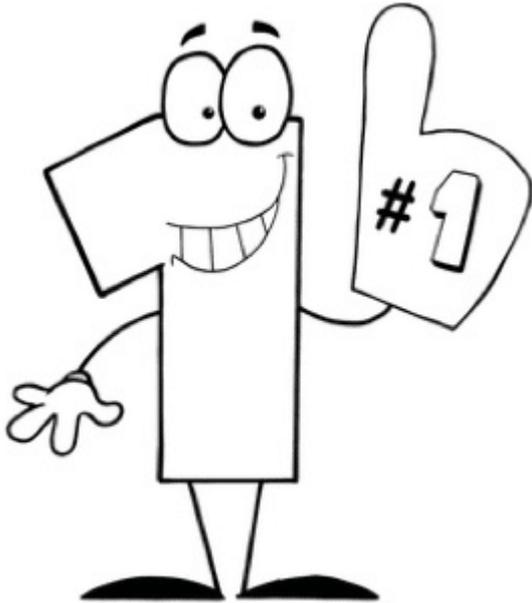
Even if you have spent many months of revising but fell sick on the day, then all your efforts might possibly be put to waste. As a GCSE teacher, I always remind my students to eat right and be healthy. Taking in vitamin supplements might also help in keeping you in tip-top shape. Researchers have published many articles outlining the importance of having enough sleep. Getting enough rest days before the exam will keep your stress and anxiety level lower.

Your brain is a part of your body and like any other parts, it can get tired too so give it a rest by having sound sleep. Also, on the day of the exam, you can only stay calm if you arrived at the exam room in a happy spirit. So make sure that you arrive earlier than scheduled, have your things ready (the most unfortunate that can happen during the day of the exam is forgetting your own calculator). Failing to do these two things will surely stress you out even before the actual exam begins.

10. Believe you can do it

I always say this to my students but I will say it again, "you are what you think you are." Yes, your mental state is as important as the worded problem. Taking care of your own (psychological insecurities) problem is the first step to being successful in anything you do. So what if you failed a paper once? It is not the end of the world. This is the reason why you revised in the first place – better yourself and prepare for the worst scenario.

Having negative thoughts both during the revision stage and on the exam day have the same effects. Remember the saying, negative thoughts equal negative results? Turn that into more positive and keep it until the exam is over. While revising, keep telling yourself you can do it, then there will come a time that you begin to look at numbers from a totally different perspective. Without a doubt, things are easier when you believe.



Remember that Maths, like any other problem, has a solution. You just simply have to work finding ways around the seemingly 'impossible' problem. It probably looks like magic especially when you do not know where the variables are coming from but it's not. If you know the trick your teacher used, then you are go to go. Yes, there are plenty of short cuts too!