

Tynecastle High School Mathematics Department

Study Skills Guide

1. You must take responsibility for keeping up with work.
2. Make sure you find out how to do the work you have been shown in class:
 - a. When learning a new topic, if you do not understand you **MUST** first look over your notes and be able to refer to the topic in question. If you still don't understand you **MUST** put your hand up and ask for further explanation.
 - i. **YOU MUST BE RESPONSIBLE FOR *YOUR OWN* LEARNING.**
3. You should *at least* be studying maths for 3 hours a week at this stage. This time is inclusive of supported study sessions.
 - a. Please note that if you feel you are struggling with the course we would recommend 5 hours of maths study per week and attendance at *both* supported study sessions.
4. Work with your *friends*
 - a. Informal study groups are an excellent way to develop team working skills and you may get different perspectives on how to do a problem. Just make sure that you are actually doing work though and don't get too distracted.
5. Start work from the Exam Prep alongside Unit Prep from the Assessment Pack.

Exam Prep:

- Good study habits from the beginning of the year make studying for the final exam easier
- Revision of a topic should be started immediately when the Revision Pack comes out.
 - You should self-mark your revision pack and attend supported study for any questions that you did not understand

When studying for the exam...:

- Revise each section i.e. E&F 1.1, E&F 1.2
 - Review notes
 - Check you can still do the work set (go through examples)
 - Feel free to photograph any additional exercises in class to complete at home
- Start past paper questions (found in Assessment Pack by Assessment Standard {Exam Prep})
 - Time yourself (1.5 mins per mark)
 - Only use a calculator if it is a calculator question
- Look to complete whole past papers in January time
 - There will only be a few topics which will not have yet been covered in class

In the exam hall:

- Do the questions you feel most confident about first
 - You do not need to stick to the paper in order
 - This builds confidence and you won't miss your 'easy' marks because you have run out of time.
- Be aware of time
- Read the question fully
 - Underline key points
- **SHOW ALL WORKING**
 - In a neat and organised fashion:
 - Label each bit of working so that you tell the examiner exactly what you are trying to work out
 - The examiner will never make assumptions... assume they are an idiot
 - Do not scribble/rub out/tipex working. A simple line through the working will do.
- Other important things to consider:
 - If you can't do part a, it doesn't mean you cannot do part b or c etc...
 - Does your answer make sense?
 - You do not leave the exam hall. You will check your answer again and again until you are stopped by the invigilator

Asking questions

- Don't be afraid to ask questions. Any question is better than no question at all (you must make sure that your teacher knows that there is an issue). A *good question* will allow your teacher to quickly identify exactly what you don't understand.
- A comment such as: "I don't understand anything in this topic" is too vague. You will be expected to ask good questions which direct the teacher to the exact aspect of work which you are trying to understand:
 - Good comment: "I don't understand why $\sqrt{12}$ becomes $2\sqrt{3}$. This is a very specific remark that will get a very specific response and hopefully clear up your difficulty.
 - Bad comment: "I can't do fractions."
 - Good comment: "I have difficulty multiplying fractions"
 - Good question: "How can you tell the difference between a quadratics equation and factorising a quadratic?"
- How to make a bad question turn into a good question:
 - Bad question: "How do you do question 17?"
 - Slightly better question: "Can you show me how to start question 17?" (which means that you hope that given the start you think you'll be able to complete it)
 - Excellent question: "This is how I tried to do question 17. What went wrong?" The focus of attention is on your thought process and you have considered the problem and brought ideas to the table.
- Right after you get help with a problem, work another similar problem by yourself.

You control the help you get

Teachers should be coaches, not crutches. They should encourage you, give you hints as you need them, and *afterwards* show you how to do problems. *But they should not, nor be expected to, actually do the work you need to do.* They are there to help you figure out how to learn maths for yourself.

- When you go for help, have *specific questions* to ask. You should run the session as much as possible.
- *Do not allow yourself to become dependent on others*, they cannot take the exams for you. You must take care to be the one in control of tutoring sessions.
- You must recognise that sometimes you do need some coaching to help you through, and *it is up to you to seek out that coaching*.