Senior secondary

Introduction to senior secondary study

Scholar study workbook



With thanks to the following people who have assisted in authoring and editing these materials:

Jane Cullen, Caroline Davies, Jacqui Elton, Lore Gallastegi, Chrissie Jere, Pauline Lewis, Lesley Smith and the Malawi National Exam Board for their help in writing this guide.

Contact details:
International Development Office
The Open University
Walton Hall
Milton Keynes
MK7 6AA
United Kingdom
+44(0) 1908 655 313

For more information about The Open University Keeping Girls in Schools Project see:

www.open.ac.uk/about/international-development

For more information about the TESSA programme see: www.tessafrica.net

This material has been funded by UK aid from the UK Government, however the views expressed do not necessarily reflect the UK Government's official policies

© July 2014

This work is licensed under a Creative Commons Attribution-Share Alike 3.0 License.



'Keeping Girls in School' Scholarship Programme

MSCE Resources: 2014-15

Contents

Study Calendar – Term 1	i
Study Calendar – Term 2	ii
Study Calendar – Term 3	iii
Scholar's introduction to study	1
English Unit 1 Introducing English language	21
English Unit 2 Introducing literature in English	31
English Unit 3 Note-making and comprehension	41
English Unit 4 English language and literature	51
English Unit 5 Modern African fiction	63
English Unit 6 Shakespeare's Romeo and Julie	79
Revision Units E1-E6	94
Maths Unit 1 Numeracy and probability	105
Maths Unit 2 Basic algebra and logarithms	119
Maths Unit 3 Algebra 2	133
Maths Unit 4 Measuring geometric shapes and solids	149
Maths Unit 5 Statistics	163
Maths Unit 6 Angles and circles	189
Revision Units M1-M6	215
Physical Science Unit 1 Elements and chemical bonding	227
Physical Science Unit 2 Forces and motion	243
Physical Science Unit 3 Periodic table and reactions	257
Physical Science Unit 4 Matter and electricity	269
Physical Science Unit 5 Organic chemistry	285
Physical Science Unit 6 Electricity and magnetism	299
Physical Science Unit 7 Waves and radiation	313
Revision Units S1-S7	325
Biology Unit 1 Locomotion	343
Biology Unit 2 Respiration	355
Biology Unit 3 The circulatory system and digestion	371
Biology Unit 4 Excretion and coordination	395
Biology Unit 5 New generations	423
Biology Unit 6 Drugs and disease	451
Revison Units B1-B6	485



Scholar's introduction to study

Welcome

learner.

Many congratulations. You are taking part in a study and work experience project on the Keeping Girls in School Programme. You have been selected because you want to work hard.

We have important work to do because:

- Malawi needs more teachers
- Malawi needs more women teachers
- more girls must complete secondary education and pass MSCE
- your community needs you to be a role model
- when women are educated, all the family benefits.

We wish you all the best and every success this year. It will be hard work but we hope it will be worth it, for you and for the children you will help. Good luck.

Activity 1			
1.	Why is this project important to Malawi? Give some new reasons:		
••••			
2.	Why is it important to your community? Give some other reasons:		
3.	Why is it important for you? Give some personal reasons:		
••••			
	vice: 'Why?' is an important question for you as an independent		

MSCE study skills

About your learning materials

These pages will help you prepare to study again for the MSCE. Read them over the first two weeks and do the activities alone or with a friend. 'Study skills' mean ways to help you study.

Studying a subject again is revision. It is another chance to find out. The MSCE subject study pages and materials do not cover every topic. If you need to know more go to find other materials at your Teacher Development Centre (TDC) or local secondary school, or ask your Tutors.

What do I do first?

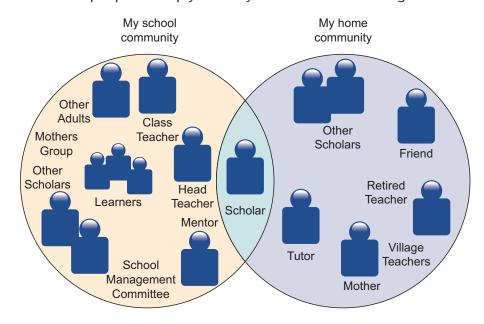
- Look at the calendar to see what you have to do, and when.
- Plan time you are in charge of your planning and learning.
- Understand that this is a different way of studying.

For example, the calendar shows when you start your School Experience work and when to start to prepare for study for your MSCE subjects. Think about what will you do every afternoon and evening. When you were younger in school the teacher was in charge of the lesson and the timetable. This is a different way of learning because now you decide what you learn, and when, and where, and how.

Ac ₁	tivity 2
1.	Which times of the day will you keep free for MSCE study? Write it here. Change it if it does not work.
2.	Who or what could stop or delay you studying? What will you say about this?
••••	
••••	
••••	

About people who will help and support you

You will have people to help you and you will also be working alone.



Your family and community

You want to be successful in your study for the MSCE exams and so do your friends and family. You can do it! Tell your family when it is time for study so they will try and leave you free. You will need their help, cooperation and support during this year because you have important work to do.

Your friends and other women Scholars

Education and studying has changed the lives of women. Many women of all ages have studied and revised using this method. Working together is very helpful. It is very important for you to find other women so you can learn and help each other.

Activity 3

Write the names of family and other women Scholars who can help you. Think about how they can help you.

My sister told me what was difficult in the Literature exam. I will ask her to help me revise Romeo and Juliet.

Name	What I will ask/look for	How this can help
At my primary school		
In my community and at the TDC		
Class teacher		
Other Scholars		
Other Scholars		
Friend		
Retired teacher		
Tutor		
Mother		
Me		
Mentor		
Learners		
Other adults		

Your Tutors

Your **Tutors** will help and support you with your study of the MSCE materials. You will meet regularly with your Tutors because this will be your chance to ask questions about your MSCE work and be honest about what help you need. Your Tutors will be able to advise you about the best way to study and revise some of the subjects. They will also help you decide if you need more practice work and where to get more information.

CTIVITY 4	
t the end of each tutorial, your Tutors will sign your study units. Why do ou think they will do this? Write your thoughts here:	

You might have written that your Tutors sign to show that you have met and discussed what you have done, what you find difficult and what you need to do next. Although there is space for your Tutors to sign, remember that you are in charge of your own learning.

It is important that you say what is easy and say what is still difficult. Then you will know **what** to do next and how much time to spend on it. This may be different from what a friend finds difficult. It is important that you are clear **where** you will find any extra help, like books or subject teachers.

Your Tutors want to help you feel confident about your own learning. Your Tutors are not the same as a teacher trying to test you but they will help you use the learning tools and revision materials so you can help yourself. Be honest so you can have a helpful conversation with your Tutors.

What do I do next?

We are asking you to understand study skills so you can use them when you start work on the MSCE units. Start to look at the titles and headings first and then come back to the detail of the MSCE unit.

This is different from studying in a classroom and with a teacher and textbooks because:

- You have to be your own teacher and be honest with yourself.
- You have to decide what is easy and difficult and do more on some subjects and less on others.
- You may need to go back to things like maths which you did a long time ago.
- You have to look for help when you need it.
- You have to be organised and think about using your time.
- You will need some learning tools or study skills or learn how to learn again. The next pages will help you with this.

About this study guide

This study guide has study tools or learning advice or study skills. When we cook food or when we grow crops we need tools. Studying is the same. We need tools and we need to use them.

The study tools or skills in this guide are:

- 1. Planning
- 2. Finding out about the exams
- 3. Reading skills
- 4. Active learning
- 5. Estimating and predicting

Study Skill 1: Planning

Plan your time for study. You choose the time. You choose how much you need to do.

Look at the calendar and look at the list of topics for each subject. Spend about six hours per week on each subject for your MSCE work, but exactly when you study will be up to you. Some topics you may find easy, and can spend less time on, some you will find harder, and will need to spend more time on. Do remember that you can stay on at school at the end of your School Experience day and study with a fellow Scholar.

Activity 5			
	•		

Planning a study timetable

Look at the Study Calendar for Term 1 in the front of the folder. Take some time to think about when you are going to study every day. Speak about this with the other Scholars in your study group and don't forget to tell your family when your study time is every day.

Study Skill 2: Finding out about the exams

Next is a tool to help you prepare for what the exam paper looks like for each subject.

Why do you need to know this?

You might say that you need to know so you will be ready and not be afraid. For example, if you do not know how many questions or how to plan your time you may not do your best work.

Reading the instructions on the exam paper is important, as this woman found out:

"I was very upset ... as I walked out of the exam room, I looked again at the instructions and saw, that I was supposed to answer four questions and I had only answered three! I was very nervous at the beginning of the exam!"

Time and marks are also important. Give the right amount of time to each question. Do not spend all your time trying to answer the first few questions.

Look at how many marks a question or section will give you. If there is a part of the exam or subject you find very puzzling or difficult, look at how many marks it is worth. If it is only worth a very small percentage of the overall mark don't worry! You need to spend your exam time wisely. Focus on the questions with most marks.

Different subject papers look different. Some have multiple-choice answers. Others ask for short paragraph answers. Some ask you to do technical or number work. It depends on the subject.

Activity 6		

Finding out about exam papers

Discuss with your Tutors how to find past exam papers for your MSCE subjects.

Look at exams and especially the instructions on what you have to do.

Use the following chart to note how many papers there are, how many questions, which questions have maximum marks, how many sections (A, B), if there is a choice (either ... or ...) and whether they need long answers.

Subject	English language	English literature	Maths	Biology	Physical Science
How many exam papers?					
How many questions on each paper?					
What about sections?					
Maximum marks?					
Is there a choice of questions					
Are there multiple choice questions or longer questions?					
How much time is allowed for each paper?					
Other notes					

Study Skill 3: Reading skills

You may think that you can already read – indeed you are doing so right now! But can you read for different purposes? For example:

- · reading quickly
- · reading slowly.

Think about why you would want to read slowly or quickly for different purposes. You may also read to learn or read for pleasure.

What kind of reading will you need in the exam?

What will you do if you meet a new word?

Reading quickly

Sometimes in your studies you need to look through texts or questions quickly, looking through lots of pages to get to the main points or for one piece of information.

When you are reading quickly, look at headings, contents lists, introductions or conclusions. This helps you prepare your mind. You may underline or circle words to come back to.

Reading for pleasure

Sometimes you will read for pure enjoyment because you are very interested. You just want to find out more and do not need to take notes or underline. This is a pleasure and we hope you will increase your reading from now on.

Reading to learn

In your MSCE study you will be mainly reading to learn. This doesn't mean that you are trying to learn off by heart everything that you read.

It means that you are trying to understand the main points of what you read, and think about it. If you do this, you are **reading actively**, you are likely to remember what you read.

To read actively start to use these tools:

- Underline main or key points in the text.
- Summarise and make notes on what you read.
- Make comments or ask questions on what you read.

There is no need to underline or copy everything; you need to select which are the important things.

• Summarise and make notes on what you read.

Try to write notes in your own words rather than repeat the words of the text. Don't copy sentences you don't understand or your notes will not help you with revision. If you put things in your own way it means you have to think about what you read.

Make comments or questions on what you read.

If you have opinions about what you read, say so! Make a note of it in your study resources. Do you agree or disagree? How does it relate to your own experience? Some questions will be about parts you do not understand. You can clarify these points when you meet your Tutor or your fellow Scholars.

Example of notes and comments

So, your **summary** notes about the first pages of the story **Smouldering Charcoal** by **Tiyambe Zeleza**¹ might be something like this:

- Mchere wakened by a rat.
- Nambe, his wife, is pregnant.
- Mchere doesn't want another child too expensive.

Your comments and questions might include:

- Poor Nambe, it isn't her fault she's pregnant!
- Why is Mchere sore all over?
- New words to find out about: omen.

What to do when you meet a new word

What do you do if you get stuck on a new word? Sometimes when you read you will get stuck.

You might look back to the earlier parts, to see whether this helps with understanding. Look ahead a little; you may find that what is written a few lines ahead explains the bit you were struggling with.

And if all this doesn't help, just skip ahead and try to pick up the thread somewhere else in the text; or leave it altogether and start on another piece of work. It is more important to spend your time usefully than sitting for too long over one word.

When you have time to go back to the word, decide if is a new word for English or an important technical word for a subject.

¹ Set novel for MSCE English Literature exam

Activity 7

Read the story below and do the following things:

- 1. Make a short summary of the important points.
- 2. Write one sentence giving your opinion of Grace's ambition.
- 3. Underline any important words you do not understand (remember, you do not need to understand every word to understand the whole).

Grace's ambition

Grace very much wanted to become a teacher. She had wanted to become a teacher since she was small. This was probably because she loved her own teacher, Mrs Chitsulo, so much. Mrs Chitsulo was very kind. She never shouted or got angry when the children made mistakes. The children in her class did not misbehave because they respected Mrs Chitsulo and they wanted to please her.

Grace remembered how Mrs Chitsulo made everything seem interesting. If they were reading stories they used to sometimes act out the stories like little plays. If they were learning about weights and measures Mrs Chitsulo used to bring scales and rulers and pieces of string in to the classroom. Then she would let the children use the scales to find out how heavy different things were. Or she would let them work in groups with their rulers and string and find out the area of the classroom floor, or use a map to estimate the distance each of them had to walk to get to school. Because they were doing interesting things, it was easy to remember things. Grace had never forgotten how to calculate area after she had been around the length and breadth of the dusty classroom on her knees with a piece of string. It was better that way than just working out sums from a book all the time.

Grace wanted to be a teacher like Mrs Chitsulo.

It wasn't going to be easy. Grace knew she would have to pass her exams and she didn't have much time to study. Also, some of the older people in her family said that girls should not be teachers, but should stay at home and look after their brothers and sisters, or later their husbands and their own children.

But luckily, because of Mrs Chitsulo, Grace knew that girls could be teachers, wonderful, inspiring teachers. She was determined to succeed.

Everyone's answers to the activity about Grace's ambition will be a little different. Mine might look as follows:

- 1. My summary: Grace wants to become a teacher because she was inspired by Mrs. Chitsulo who was her teacher when she was little. Mrs Chitsulo made things interesting for the children and therefore they learned things better. Grace is going to have to pass exams and overcome other difficulties to achieve her goal.
- 2. My opinions: Of course women can become teachers! Good luck to Grace!
- Words to find out about: Ambition, misbehave, inspiring. (Maybe you can guess what some of these words mean by reading the rest of the story.)

Activity 8

If you have a newspaper story or two three pages from a textbook or another MSCE revision unit, use the reading tools in the same way you have done with Grace's story. Read it quickly so you have a rough idea of what it is about and then:

- Read it more slowly and thoroughly.
- Make a short summary of the important points.
- Write a few sentences giving your opinion of the content of the piece.
- Underline any important words you do not understand (remember, you do not need to understand every word to understand the whole).
 Can you guess what some of these words mean from reading the rest of the text?
- When you have done your summary, try and show it to a friend or fellow Scholar so you can discuss it and compare notes.

Reading skills and learning new words

You are going to learn a lot of new words and vocabulary when revising for your MSCE and reading text books. Some words will be new because they are specialised technical words. Some words are about studying and study instructions. This is an example of a tool to help you learn and organise these new words. You may want to make a better tool.

Subject	Word and key idea	Study words
Biology	photosynthesis	
Maths		calculate

Making a note of new words

How do you learn new words? Do you try to learn new vocabulary or does it just happen without you trying? Here are some things other students say they do:

- 'When I'm reading, I underline all the words I don't know and when I've finished reading, I look up all the words in a dictionary or ask a friend or Tutor about them. Then I write the words in a list and try to remember them.'
- 'I have a small notebook and write any new words in it, with translations or explanations. Then I look at them frequently and try to remember them.'
- 'I write down new words with a little sketch or drawing next to them just something to help me remember.'
- 'I write down the new word then an example of the word being used in a sentence. This helps me to understand and remember the new word.'
- 'The very best way of learning new words in any language is to read as much as possible.'

Do you think any of these are a good idea?

We think all of them can be helpful. You will need to decide which ones work best for you. It is definitely a good idea to keep your own word list and to write down new words and explanations although you do not have to note every new word. You can translate the words into Chichewa and/or write the explanations in English. Doing something active with the word, such as drawing a picture, or giving an example of how the word is used, can help you remember it (see 'Active learning' below).

If you keep a vocabulary notebook, you could divide it into sections according to subjects (Maths, English, Biology, Physical Science) and then also have a general section. If your notebook is big enough you could put these general words in alphabetical order to help you find them later.

Sometimes it will simply take too much time and be too difficult to look everything up. You need to become a good judge of when you can skip over words in your reading, and when it is important to find out what they mean.

For example, read this sentence.

Nambe could not come to school because he had contracted a serious infectious disease.

You might not be sure of the exact meanings of the words 'contracted' or 'infectious' or even 'serious'. However, as long as you understand that Nambe isn't coming to school because he is ill, it might not be necessary for you to look up the difficult words. Indeed if you understand the main point of the sentence, you can probably have a guess at what some of the new words mean. This is how reading improves our vocabulary.

When you are reading novels it is important to remember this. Sometimes if you concentrate on all the words you don't know, you can lose interest and become discouraged. As long as you are getting the general sense of the text and maintain your interest in the story, just carry on! Sometimes you find that if you do carry on, you get an explanation for something later. For example, a few sentences after the one above about Nambe, there may be a sentence that says:

Nambe's mother was worried that he would give the illness to the other children. This tells you what the word 'infectious' means. So, another tip for reading and learning new words is: if you come to a word you don't understand, read on a little, it might become clear later!

Try and get or make a notebook for your new vocabulary. Start it off by writing any words in this booklet you don't understand. Try and look up or ask your Tutor or fellow Scholars what the words mean.

Study Skill 4: Active learning

Active learning means you have to do something with the learning. Get it off the page and into your head.

For example:

- Talk to a friend or explain to someone else or read aloud.
- Walk and think about it or perhaps imagining a picture.
- Draw make a diagram.
- Write it again in a different way.

Think about how you have learned in the past? From copying? From hearing and repeating?

During your self-study, we want to encourage you to be active in your learning.

Active learning is better than simply reading the course materials and waiting for a test. You do something with the subject. You find the way that helps you to understand and remember it. Try some of these methods. Different people prefer different methods. The important thing is that learning through doing something helps understanding better than just copying out information.

Activity 9

Which method will you try first? Try a new method.

Write what you have done and tell your friend.

For example:

Diagram

Use a diagram as a summary of the main characters in Romeo and Juliet.

House of Montague	House of Capulet
Romeo	Juliet
Mercutio (Romeo's friend)	Paris (Juliet's suitor)
Montague (Romeo's father)	Juliet's Nurse
Lady Montague (Romeo's mother)	Capulet (Juliet's father)
	Lady Capulet (Juliet's mother)
Friar Lawrence	
Apothecary	

Talk

You might talk to a friend and ask each other questions.

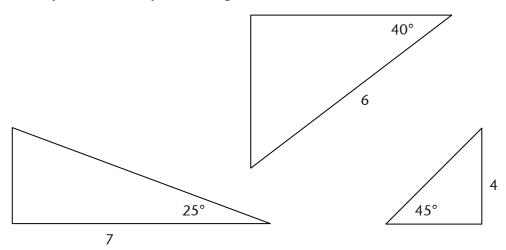
You might cover up the pages when you are explaining. Your friend might ask different questions. This is an exercise you can do again and again with different subjects to help you understand and remember content for your MSCE exams.

You might also use rhyme or first letters to remember something. For example, if you find it difficult to remember whether Juliet (in Shakespeare's play Romeo and Juliet) belongs to the Capulet or Montague families, it may help to picture Juliet wearing a little CAP (CAPulet). This is called a memory aid or mnemonic.

Draw

Often, maths problems are given in words. For example, a problem about division might be given as a story about several people sharing out food or money. Answering a problem like this means that you have to try to find out what calculation is needed from the story. It sometimes helps to draw a sketch of what is happening in the story.

Drawing is also good to practise. When you have just learned something in maths, it is easy to forget how it was done a few weeks later. For example, if you have learned about sines, cosines and tangents, try to draw some different triangles and work out how long each side is. You can check your answers by measuring the sides afterwards.



Good luck with making your learning active.

Study Skill 5: Estimating and predicting

If you have a good idea of about how big your answer to a question should be, when you work it out, you will know straight away if you have made a mistake. Most mistakes in maths and science are because a number or a symbol has been copied down wrongly, so usually a mistake gives an answer that is very different from the estimate. You can play the estimating game at any time. For example, when you are walking down the road, try to guess how many steps you will have to walk to get from where you are to the next house, or tree, and then start counting. After a while, you will find that you can estimate these things quite accurately, and this helps you get a feeling for the size of numbers.

In science, one of the most important things to be able to do is to check that impossible things are not happening. For example, if I drop a ball on to the ground, I know that it will not bounce higher than the hand that I dropped it from. I know this because that would mean that the ball had gained, rather than lost, energy when it bounced. The idea that whenever anything happens, some energy gets turned into heat is a very useful one. You can check this against what you observe and experience around you.

Good luck!

When you start your revision

You might be reading this section at the beginning of your MSCE study, but read it again when you are about to start the revision and preparation for your MSCE exams. Being successful in your exams starts with preparation and active revision.

To help your revision, you will have a number of tutorials <u>in each subject</u> with your MSCE Tutors and the Scholars from your area. However, this is not sufficient to be successful in your exams. This means you should spend between 3 and 5 hours on revision EVERY DAY to be successful in your exams.

Using 'How am I doing?' section for revision

During your MSCE study, you completed a section called 'How am I doing?' at the end of each unit. We want you to return to this section in each unit to start your revision work. In order to pass your MSCE you should be able to tick the 'Easy' or 'Fine' column for each row.

Go back through the 'How am I doing?' section for all units of the exam subjects you will be sitting, and mark in the column how you now feel about each topic. (If you used a cross or a tick before, you might want to use a circle now.) Although you should revise all sections, you should spend more time on any section where you selected the 'difficult' column. Go over the unit again and try to see if you can now understand this section. Speak with other scholars or make a note to ask your tutor at your revision tutorial to see if they can help you understand this section better.

An important aspect you have worked on in the KGIS programme is working with other people who might have more experience and knowledge than you, such as your MSCE Tutor and your School Experience Mentor. You have also got used to sharing experiences and studying MSCE units with other Scholars, and working together to overcome difficulties. Working with others will be very useful to you while you are revising for your exams. You can discuss what you have learned and are revising with other Scholars, with friends or relatives who might be preparing for their own MSCE exams in your village or community, and with your MSCE Tutor.

Activity 1: Revising with others	

Think of your MSCE study during this year. Can you identify 3 units you found difficult?

you did to overcome that difficulty. Maybe you asked another Scholar, or your Tutor, or you looked at a specific book in the TDC or at the school where you meet your Study Group.							
1							
2							
3							
Write below, as though you are explaining to another Scholar, what the main points or short questions are in these units that you need to remember for the exam.							

Write below (1, 2, 3) the name of each unit you found difficult and what

When it comes to revising the subjects, we suggest you revise with another Scholar when you are with your Study Group. It really helps to check your understanding and listen to good ideas from someone else in your group. But don't always work with the same Scholar, as you can get even more help by testing out your knowledge and ideas on someone new. Make sure that you (and the rest of the Study Group) change study partners from one joint activity to the next.

Although it is important to revise with others, you need to be confident that YOU have all the knowledge you need for the exam. In order to achieve this, you need to plan when and how you are going to revise the different subjects for your exams. You should aim to set aside between 3 and 5 hours every day to revise. We all have different responsibilities and preferences, so on some days it may be easier for you to spend the time in one block while at other times it may be easier to do shorter revision sessions through the day (for example, some time in the morning and some time in the afternoon).

Activity 2: Preparing a revision calendar ___

In your KGIS folder there is a Study Calendar for each term for your School Experience work and your MSCE study. Now create your own Revision Calendar for the MSCE exams. You will need to think about what you need to revise for the exams and when you are going to do this. This might be different for you than for other Scholars, as you might be sitting different exams or you might be stronger in one subject than another.

Take the Revision Calendar at the end of this revison guide introduction and, using the MSCE Study Calendars for each term, write in each subject column which unit you will be studying and when. There are 25 units in total, so you could concentrate approximately on one unit each day (although you might find you need less time for the units you find easier). You might not be sitting the 4 exams included in the MSCE KGIS resources, so this would mean that you would have more time to revise the other subjects.

Finding out about exams

Besides knowing your subjects, it will help you feel more confident and relaxed knowing what will happen on the day of the exam. You already have experience of taking an MSCE exam, and this time you have had a lot of support – from the KGIS resources, your Tutor and other Scholars – to help you to achieve better results than when you first sat the exams.

If you go back to earlier in this Introduction to Study section, you will find some advice on preparing for exams. Please read this advice again and make sure you know what you have to do in each exam you are going to take. You will see that you had a table where you indicated the information you had on the different subjects. Revise this grid and amend it if you have any new information. Your MSCE Tutor, other Scholars, or friends and relatives who are revising for their own MSCE exams might be able to help you to do this.

Revision tips

Planning

- List the topics you have to revise.
- Note how many days/hours you have for revision.
- Divide up your time between the topics. Longer and demanding topics should be allotted more time
- Find the best place to revise somewhere as quiet and comfortable as possible.
- Make sure you keep to the plan!

Active revision

Don't just read through your work. Try some or all of the ideas below.

- 1. Make a list of **the key words** in each unit. Write your own explanation for each word
- 2. Test yourself or your fellow Scholars using questions and activities from the units.
 - For Biology or Physical Science, sketch diagrams on rough paper and label them without looking at the unit. Then mark your work. In general, make sure you are able to draw a diagram of any type of specimen presented to you and learn to calculate the magnification of drawings. Develop an interest in observing specimens closely.
 - For English, make drawings or diagrams of the main characters and use arrows to show how they relate to one another.
- 3. Make your own **spider diagram** for each unit summarising the most important points.
- 4. We learn best by **reviewing** our knowledge and understanding several times. Each time you start a new topic, briefly review what you learned in the last topic perhaps by looking at your spider diagram or your list of key words. If possible, do another review a week or so later.
- 5. You could <u>start</u> each revision topic by doing a quick spider diagram of **everything you already know about the topic**. Yes, you do remember things! Relax and try again if you think you don't! Build up your knowledge from what you already remember.
- 6. Write down any words or ideas you do not understand. Ask your Tutor or another Scholar to help when you see them.
- 7. Look at **past exam papers** and try to answer the questions.

Give yourself short breaks during each period you have set for revision. Have a drink, walk around, do something you like – but not for more than 5 minutes!

Activity	3: M	y MSCE exams	

Find out as soon as you can about the location and time of your MSCE exams, if you have not done so already. It is important that you remember the dates and know where the exam centre is and how you are going to get there. You should check with your Tutor about the MSCE exam timetables from MANEB. They will be sent to schools well in advance. Complete the grid below with information about the exams as you receive it.

Subject	Exam	Date	Time	Where do I need to go?	How will I get there?	Do I need to take anything with me?
English language and literature	4 papers					
Mathematics	2 papers					
Biology	Theory Paper 1					
	Practical Paper 2					
Physical science	Theory Paper 1					
	Practical Paper 2					10

Practising past exam papers

Practising with past exam papers is a useful technique to revise what you have learned. You can find examples of questions from previous exams in the MSCE units you have studied and your Tutor will be able to give you some extra questions if you think you need them.

Think about how much time you will have in the exam to complete the questions, and try to write an answer in your own time. When you do this, you should be strict with yourself and do this without using any notes or looking at the MSCE resources. Of course, because this is a practice exercise, you can look at the resources when you have completed your answer to see if what you have written is correct or whether you could have added more information. You could also ask another Scholar to look at your answer and work together to find what the best answer would be.

Exam tips

- 1. Teachers always ask their students to read the question carefully and only answer exactly what is asked. Make sure you are not the one who forgets to do this!
- 2. Note how many questions there are to answer in the time. Make sure you have time to answer all the questions.
- 3. Look at the mark allocation for each question. That helps you decide how much to write.
- 4. Be precise, not vague, in your answers.
- 5. For essay questions, write a brief plan of what you need to cover to answer the question before you start.
- 6. Be ready to apply what you have learned in your theory work in answering questions on the practical paper.

Be kind to yourself!

- Understand *how* you've learned what you've learned this will help you to revise.
- Believe in yourself having a positive attitude is very important.
- Congratulate yourself on the work you have achieved, as you do it.
- Do not panic that you do not know every single thing. None of us does!
- Keep going! When looking at past papers, concentrate first on topics covered in your KGIS units. Do not worry if you cannot answer all the questions. But if you have time, revise additional topics using other text books so that you can answer more questions.







