

School of Mathematics and Statistics

Module MAS302

Undergraduate Ambassadors Scheme

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Undergraduate Handbook



The
University
Of
Sheffield.



**Undergraduate Ambassadors Scheme
Module Code: MAS302**

Undergraduate Handbook

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1. INTRODUCTION

Welcome to the Undergraduate Ambassadors Scheme module. This Handbook is intended to give you a full overview of the how the module will run and to help you prepare for the challenges ahead.

The middle part of the Handbook contains material that you will go through with staff from the University's Education Department at a Training Day held in November (details below). It is **compulsory** that you attend this full day of training before you can participate in the module. It is also very important that you read through as much of this Handbook as possible before the training session.

The module is operating as part of a national scheme called the Undergraduate Ambassadors Scheme (UAS) that is supported by the Department for Education. UAS works with universities all over the country to develop similar modules in other science, technology, engineering and mathematics departments, and has links with various other subject organisations and professional institutions.

Once you have completed the training day and passed the necessary checks (see below) you will be entitled to become a 'Science and Engineering Ambassador' (SEA), with a photo ID badge and certificate that are valid for three years. The 'SEA' is a scheme supported by SETNET and the Department for Trade and Industry, which enables young scientists and engineers to work in schools in a variety of activities. If you enjoy the experience of tutoring in schools during this module but decide not to go into teaching, you can carry on tutoring as a SEA Ambassador once you have graduated (see www.setnet.org.uk for more information).

2. OVERVIEW OF MODULE

2.1 What Is It and What Do You Get Out Of It?

The Undergraduate Ambassadors Scheme module will reward you with course credit for working as a 'student-tutor' with teachers in local schools and help you develop some valuable transferable skills. You may already know about 'student tutoring' schemes that work on a voluntary or paid basis, such as the Student Associates Scheme. Most of these run very successfully without giving course-credit for taking-part, and do provide immense satisfaction to the truly committed undergraduates who get involved. This module is slightly different in that you are rewarded with credits towards your degree for the work you do in the classroom.

Of equal importance are the ways in which you will benefit as a result of doing the module. You will learn important, marketable and transferable skills of benefit to you in employment and in life. A good degree is no longer enough in the competitive world of work and national experience has shown that involvement in courses like this is of great appeal to potential employers. The specific and transferable skills you will obtain, or improve on, include:

- ³⁵/₁₇ Organisational and interpersonal skills
- ³⁵/₁₇ Addressing the needs of individuals
- ³⁵/₁₇ Time management skills
- ³⁵/₁₇ Working in a challenging and unpredictable environment
- ³⁵/₁₇ Staff responsibilities and conduct
- ³⁵/₁₇ The ability to improvise
- ³⁵/₁₇ Giving (and taking) feedback
- ³⁵/₁₇ Handling difficult and potentially disruptive situations
- ³⁵/₁₇ Public speaking and communication skills
- ³⁵/₁₇ Team-working
- ³⁵/₁₇ Standard teaching methods

You will gain experience of working in a professional educational environment and will learn about the key issues affecting secondary education today. You will have the satisfaction of making a positive impact on the education of pupils across the secondary age group and acting as a role model for your subject. It is a chance to put something back into the community by sharing your knowledge and helping to motivate young people and raise their aspirations towards science. You will develop your confidence in answering questions about your own subject and in devising appropriate ways to communicate a difficult principle or concept. You

will develop your communication skills and gain a better understanding of your own level of expertise.

For those of you who are interested in teaching as a profession, this will be an opportunity to explore whether it is a path you want to pursue. You will learn to devise and develop science projects and teaching methods appropriate to engage the relevant age group.

And you should get a lot of enjoyment out of this course!!

2.2 How does it Work?

The module will involve:

- ³⁵/₁₇ Attendance at a one-day Training Session giving you an introduction to the fundamentals of working with children and conduct in the school environment;
- ³⁵/₁₇ Undergoing a Disclosure and Barring Services (DBS) check prior to entering the classroom;
- ³⁵/₁₇ Being paired with a specific teacher at your school who will work with you to identify your aims and objectives for the term;
- ³⁵/₁₇ Spending around 1/2 day a week in school for 10 weeks, developing your role within the classroom;
- ³⁵/₁₇ Completion of a Special Project;
- ³⁵/₁₇ Delivery of a Presentation as part of assessment;
- ³⁵/₁₇ Writing a Final Report and Special Project Report for assessment.

3. YOUR TIME IN THE CLASSROOM

3.1 Overview

The school within which you will be working will be selected by the University. You will have the opportunity to show a preference for the age group you will be teaching. You will also visit the school and meet the teacher to whom you have been assigned prior to starting your work in the classroom. During the second semester (and possibly the Christmas and Easter vacations) you will spend half a day a week in the school for the duration of the module. You will be able to review progress and discuss any problems with the module tutor either through the timetabled tutorial sessions, or by arranging an individual appointment.

The day and time of the weekly placement will be decided on an individual basis to match the timetable of you and the teacher. It is possible that you may not be able to arrange a time that avoids all other University course commitments. If the arrangement made does involve you missing classes for other modules, it is your responsibility to catch up the work (you should speak to the lecturer of the other module about a suitable means of achieving this) and it is a **condition for acceptance on MAS302 that you take full responsibility for any detrimental effects on your performance on other modules that may arise for this reason**. The placement may be organised so that you are involved in lessons with pupils of more than one age group. The number of weeks for which you will visit the school should not be less than nine, but may be more than ten in some cases.

In general you will spend a few hours in the classroom each week. This may be with your link teacher, or with one or more other teachers, depending on the classes in progress during your placement visits. Your role in the classroom should progress from initial observation to constructive support of the teacher. The level of interaction with the pupils must be agreed with the teacher and should at all times be under the teacher's direction.

The initial periods of observation should be used to study the teacher's interaction with pupils, and the approaches taken to the introduction and development of topics and concepts. If possible, specific situations should be discussed with the teacher. You should expect to become more involved, possibly working with small groups of pupils on specific topics or activities, or in setting up practicals or demonstrations. As you gain experience and confidence, you may be asked to take a more responsible role such as taking all or part of a lesson, using equipment to demonstrate a principle in front of a class, or in helping in some other way such as with a Maths Club, or with a talk about undergraduate experiences, etc.

You will be required to keep a **weekly** diary of your experiences in the school. It is not expected that the teacher will read this diary, but you will need to use it yourself as a basis for the report that you will write at the end of the course as part of the module assessment. University staff will briefly review this log during the timetabled tutorial sessions and it will be used as part of the final assessment.

You will be expected to plan your own role in each lesson. These plans will need to be discussed with the teacher, who will provide feedback on them. The plans should also be available for discussion with university staff.

You will be required to implement a **Special Project**. The choice of the project should be made following discussion with the teacher and with the module tutor. It should be targeted, where possible, at a specific concept or activity for which there is a perceived need in the school. The project may be a novel method of presentation appropriate to the topic, a particular demonstration, or a pupil activity, and may involve the preparation of special materials. The nature of the project and materials must be discussed fully with the teacher. If equipment is being used or outside visits planned, then safety issues must be addressed and the teacher's advice should be carefully followed.

3.2 Assessment

The assessment for this module will comprise five components (weightings are indicated in brackets):

1. A weekly diary (10%);
2. An end of module written report (35%);
3. An account of your special project (20%);
4. A 15 minute oral presentation (20%);
5. An assessment by the teacher, moderated by the course tutors (15%).

The overall aim is to assess the extent to which you have acquired and developed:

- ³⁵/₁₇ certain key skills;
- ³⁵/₁₇ knowledge of the working educational environment;
- ³⁵/₁₇ the ability to observe and analyse;
- ³⁵/₁₇ the ability to apply knowledge in ways relevant to your environment in an enthusiastic and helpful manner;

³⁵/₁₇ the ability to evaluate critically your own progress.

You will not be assessed to any great extent on whether or not you have shown yourself to be a potential teacher.

More detail about the assessment criteria and methods used are available in Section 5 of this Handbook.

3.3 Learning Outcomes

The Learning Outcomes for this classroom-based module are as follows:

- ³⁵/₁₇ To provide undergraduates with an opportunity to gain marketable and transferable key skills including the communication of their knowledge of the subject in a classroom environment;
- ³⁵/₁₇ To give undergraduates a better appreciation of the level of their own expertise in their subject, and to build upon this through the process of explaining the subject's core ideas and concepts to others;
- ³⁵/₁₇ To help undergraduates learn to address the needs of individuals and to think about methods of presentation which are appropriate to the groups with which they are working.

4. THE TRAINING DAY

4.1 Overview

The training process for all undergraduates involved in MAS302 will be arranged in conjunction with, and delivered by teacher training staff from the University's Department of Education. All undergraduates will go through a training day prior to working with schools. The description below outlines the topics to be covered and provides useful background reading, but the day will not necessarily be ordered in this way.

The training day will cover six main areas that will be critical in helping you to meet your goals and those of the school. These are:

- 1. Education Today**
- 2. Your Role in the School**
- 3. Different Ways of Learning**
- 4. Strategies for Working with Teachers and Young People**
- 5. Preparing Yourself**
- 6. Your Questions**

4.1.1 Education Today

In recent years there have been substantial changes within education and, even though you may only have left three or four years ago, the classroom is likely to be a different place from the one that you remember. Similarly, curriculum changes will have affected course content. You do not need to be an expert on these changes but it will be crucial for you to have an understanding of the current situation and what this means for teachers. This brief introduction will mean that once you start to plan activities with teachers you will have an appreciation of their environment and the constraints and freedoms they operate under.

4.1.2 Your Role in the School

You are not a teacher and there is no intention that you should be seen in any way as substituting for a teacher. The fact that you are choosing to offer help means that you are something different from both teachers and parents. This additional perspective is one of the most important things that you will bring to the school. As a guest in the school you will have to

comply with the school's codes of behaviour. However, the training day will also provide some initial guidance on behaviour in the classroom and situations to avoid, such as being left alone with students in a classroom without a teacher present.

4.1.3 Different Ways of Learning

There are different ways to learn and different individuals learn best through different strategies. The training day will help you to explore different methods and their relevance to young people. It will also emphasise the importance of retaining young people's interest in the learning process and include practical sessions for undergraduates to exchange ideas on how this might be done.

4.1.4 Strategies for Working with Teachers and Young People

Having the right communications skills is key to developing effective strategies for working with anyone, but particularly with people whose personal circumstances may be unfamiliar to you. The learning environment must be one that is comfortable but also retains a sense of purpose. Talking, listening and questioning all play essential parts in creating this environment and their different roles will be explored.

4.1.5 Preparing Yourself

It goes without saying that you ought to be properly prepared before every contact that you have with the teacher or pupils that you are working with. Precisely because it is so obvious, preparation is something that can get overlooked. The training day will include a short session designed to help you think through all the aspects of preparation that might be necessary before each session with the school.

4.1.6 Your Questions

Although the training day has been designed to address the issues that are most likely to concern you as you prepare to start the placement, there may be other questions that you want to see answered. The training day will provide many opportunities for you to raise questions and share your hopes and concerns so that you feel confident that you are properly equipped to undertake this important role.

4.2 Topic 1 – Introduction to the Training Day and the Course

The overall objectives of the training day are to ensure that you have the appropriate skills and background knowledge required to make a positive contribution in the school. This will enable you to feel comfortable in the role and ensure that you understand the environment and constraints within which you will be operating. By the end of the training process, you should feel that you have acquired, or identified within your existing skills, the following:

Knowledge

- ³⁵/₁₇ how education is structured within the UK;
- ³⁵/₁₇ the National Curriculum – in particular with relevance to Science, Technology, Engineering and Maths (STEM) subjects;
- ³⁵/₁₇ the teacher's role and responsibilities;
- ³⁵/₁₇ some common terms, acronyms and jargon.

In addition to covering the technical background of the education system, the training course will also provide information on appropriate behaviour for undergraduates in the school environment - this will include:

- ³⁵/₁₇ how to behave with young people;
- ³⁵/₁₇ situations that undergraduates must avoid;
- ³⁵/₁₇ the different roles played by teachers and undergraduates.

Communication Skills

- ³⁵/₁₇ talking and listening;
- ³⁵/₁₇ working with group dynamics;
- ³⁵/₁₇ engaging with and motivating a range of different people;
- ³⁵/₁₇ imparting good learning strategies;
- ³⁵/₁₇ setting boundaries (your own and others);
- ³⁵/₁₇ understanding of others' experience.

Attributes and Behaviour

You must be able to recognise your own strengths and weaknesses and to impart enthusiasm for the subject. You need to be able to liaise constructively with your assigned teacher, use relevant support systems when necessary and provide feedback as and when required. At various times, you will need to be diplomatic, patient, courteous, assertive and flexible. Finally, and probably **most importantly**, you will have to demonstrate that you have not only understood the specific requirements of working with young people, but will be able to act on this knowledge.

4.3 Topic 2 - Schools Today

4.3.1 Useful Educational Terms (England)

LEA - Local Education Authority

Each area of the country is divided into local education authorities. They are responsible for the staffing and maintenance of all schools in the area, except Independent Schools and Voluntary Aided Schools (see below).

Voluntary Aided School

Those schools which are owned by trustees and jointly maintained by the trustees and the Council. They are often supported by a religious denomination (e.g. Roman Catholic).

Maintained Schools

These are more commonly known as state schools. The Government provides this Education free at the point of use (you pay via taxation) and 93% of children attend state schools.

OFSTED - Office for Standards in Education

Inspectors assess a school's performance regularly to ensure that standards of education are being maintained. A team of inspectors visit every school at least once every six years, though some schools may be monitored more regularly. They stay for up to a week depending on the size of the inspecting team and the size of the school.

Standard Attainment Tasks (SATs)

These are national tests that are taken by all school children at the end of Key Stages 1, 2 and 3. All children will take the same tests. Children are tested in Maths, English and Science (Science from Key Stage 2) to assess their level of knowledge, skills and understanding.

STEM Subjects

Science, Technology, Engineering and Maths.

Schemes of Work

These set out the objectives, activities and outcomes of individual subjects. Further information and examples can be found on <http://www.standards.dfes.gov.uk>

Lesson Plans

Lesson Plans set out in detail how a topic is dealt with in a lesson. Further information and examples can be found on <http://www.educate.org.uk>

Special Educational Needs (SEN)

A child is said to have Special Educational Needs when special arrangements have to be made for that child to learn successfully. About 20% of the school population has special educational needs of varying kinds. A Special Educational Needs Co-ordinator (**SENCO**) is the teacher in the school with responsibility for the special needs arrangements. For those children whose special educational needs cannot be met within the resources available to a school, the LEA will make a **statement** specifying the educational provision the child should have and ensure that resources are available to meet this need.

In-Service Education and Training Days (INSET)

INSET days are set aside to allow teachers to renew their skills and knowledge in order to raise pupil achievement. There are five for each teacher throughout the academic year.

Newly Qualified Teacher (NQT)

Teachers who have just completed initial teacher training and who are in their first year of teaching.

Head of Year (HoY)

4.3.2 The National Curriculum in England (September, 2001)

The National Curriculum in England is statutory for state schools. The Qualifications and Curriculum Authority (QCA), an independent statutory body oversees all National Curriculum and assessment matters. The National Curriculum is structured in four **Key Stages** or phases of learning:

Key Stage 1 - pupils aged 5 to 7

Key Stage 2 - pupils aged 7 to 11

Key Stage 3 - pupils aged 11 to 14

Key Stage 4 - pupils aged 14 to 16. [This stage is examined by means of GCSE or GNVQ]

The National Curriculum consists of eleven subjects which state-maintained schools are required by law to teach. Three of the subjects are core subjects: English, Mathematics and Science. The others are shown in the table below, which indicates at what age the subjects are studied from:

KEY STAGES AND PUPILS AGES

Subject	KS1 (5-7)	KS2 (7-11)	KS3 (11-14)	KS4 (14-16)
English				
Mathematics				
Science				
Physical Education				
Design and Technology				
Information and Communication Technology				
Modern Foreign Language				
Citizenship				
History				Optional
Geography				Optional
Music				Optional
Art				Optional

Citizenship was introduced as a new National Curriculum subject for 11 to 16 years olds in August 2002. Religious education, collective worship, sex education and careers are not part of the National Curriculum, but all schools are required by law to include them within the curriculum.

The curriculum for each subject is specified in **programmes of study** (the matters, skills and processes to be taught) and **attainment targets** (the knowledge, skills and understanding to be acquired). For details of the programmes of study and attainment targets for science, technology and maths plus further information on the National Curriculum in general refer to www.nc.uk.net/home.html

It is for schools to choose how they organise their school curriculum to include the programmes of study. Many Primary Schools achieve the requirements of the National Curriculum through cross-curriculum projects or topics. Schools also have some discretion over when to start teaching the Key Stage programme of study. The law requires that they should be taught during the Key Stage, not that they be introduced at a particular time. Teachers can also modify, as necessary, the National Curriculum programmes of study to provide all pupils with relevant and appropriately difficult work at each Key Stage.

In all subjects other than citizenship, each **attainment target** is arranged in eight **level descriptions** of increasing difficulty. These levels define the academic progress pupils can make between the ages of 5 and 14. Typically a pupil is expected to advance one level every two years. Only the most gifted are expected to achieve level 8 by the age of 14. To help teachers in differentiating for exceptional performance there is an additional description above level 8. Some children with severe learning difficulties may not progress beyond the first level. An average student will achieve level 5 or level 6 by the age of 14. In Key Stage 4, the GCSE grading scale (A*-G) is used (see Table below). The day-to-day assessment of pupils' progress, the diagnosis of learning needs and the planning of future programmes of teaching, is undertaken according to policies decided by individual schools.

National Curriculum Year	Age in years rising ¹	Key Stage	Tests/Exams	Expected attainment for the majority of pupils at the end of the Key Stage
1	6	1	-	
2	7	1	SATs – English, Maths	Level 2
3	8	2	-	
4	9	2	-	
5	10	2	-	
6	11	2	SATs – English, Maths, Science	Level 4
7	12	3	-	
8	13	3	-	
9	14	3	SATS – English, Maths, Science	Level 5/6
10	15	4	-	
11	16	4	GCSEs	

4.3.3 Education and Qualifications (England)

During year 9, students (age 14) make 'option choices' about which subjects to study in addition to those required by the National Curriculum. It is important for pupils to take a balanced mix of subjects reflecting their skills, interests and aspirations.

GCSEs and Key Skills Qualifications

In addition to the National Curriculum each school offers a variable range of different subjects for **GCSE**. GCSE courses are normally taken during years 10 and 11 and assessed at the end of year 11. Some schools offer **GCSE Short Courses** (equivalent to half a GCSE). In 2002 GCSEs in vocational subjects were introduced and are qualifications that:

³⁵/₁₇ relate to work in a particular vocational area, such as art and design or engineering;

¹ The age children reach during the academic year

- ³⁵/₁₇ are practical and give students a chance to learn by “doing”;
- ³⁵/₁₇ can be mixed and matched with a variety of other courses;
- ³⁵/₁₇ are mainly assessed by coursework;
- ³⁵/₁₇ can lead on to a wide range of courses, qualifications and jobs after year 11.

GCSEs in vocational subjects are double awards, worth two GCSEs (like the double award science GCSE). This means that they are usually given more time on the timetable than other GCSEs.

Key Skills qualifications in communication, application of number, and information technology can be studied at different levels according to individual needs and are studied separately alongside other courses at age 14 – 16. There are also 3 **wider skills**: working with others, improving learning and performance, and problem solving.

GCE AS Levels

An **AS** (advanced subsidiary) level qualification, equivalent to half a full **A-level** (advanced level) has been introduced into the post-16 curriculum to encourage the take up of more subjects and to reduce the numbers dropping out with nothing to show for their efforts. Three units are taken at AS level.

GCE A-Levels

A-levels are now made up of six units, three taken for AS level and a further three units for what is commonly referred to as A2. A-levels may be assessed at the end of the course or in modular stages. Special papers (**S levels**) available for the most able students are being revised and as advanced extension awards (**AEAs**) will be more widely accessible than current S levels.

AVCEs – Advanced Vocational Certificate of Education

Vocational A levels, available in subjects such as art and design and business, can be taken as an alternative to the GCE A-level. There are 3 possible qualifications:

- ³⁵/₁₇ Three-unit Vocational AS Level – equal to AS Level.
- ³⁵/₁₇ Six-unit Vocational A-level – equal to one GCE A-level.
- ³⁵/₁₇ Twelve-unit double award – equal to two GCE A-levels.

Key skills: communication, application of number, and information technology, remain an integral part of the teaching and learning of Vocational A-levels but are now assessed and certificated separately.

National Vocational Qualifications (NVQs)

National Vocational Qualifications (NVQs) are usually offered in association with Further Education Colleges and business/industry. They are work-related, competence based qualifications which reflect the skills and knowledge needed to do the job effectively. NVQs represent National standards recognised by employers throughout the country.

Modern Apprenticeships

Modern Apprenticeships are available in most occupational areas from the age of 16. These offer a chance to gain skills and practical experience, and they work towards qualifications, usually NVQs. Foundation Modern Apprenticeships train young people to NVQ level 2 (broadly equivalent to 5 GCSEs at Grade C and above). Job-specific training is complemented by general skills in communication, problem solving, application of number and information technology. **Advanced Modern Apprenticeships** train young people in skilled and technical employment to NVQ level 3 (broadly equivalent to 2 GCE A levels). They are an alternative to A-levels as a route into Higher Education.

The National Qualifications Framework

The national qualifications framework (NQF) (www.qca.org.uk) sets out the levels at which qualifications can be recognized. It allows learners to compare the levels of different qualifications and to identify clear progression routes to their chosen career. It incorporates the:

- ³⁵/₁₇ general educational pathway (GCSE, A/AS level, Degree);
- ³⁵/₁₇ vocational education pathway (Foundation GNVQ, Intermediate GNVQ, First Diploma, Advanced Vocational Certificate of Education, Degree); and,
- ³⁵/₁₇ occupational pathway (NVQ levels 1, 2, 3, 4 and 5).

4.3.4 Schemes of Work and Lesson Plans

Schemes of work can be downloaded from www.standards.dfes.gov.uk. They set out what pupils should know about individual topics within subjects and how this knowledge builds on the previous modules and sets the foundation for subsequent modules at specific stages in their education. Teachers use schemes of work to prepare their lesson plans. Example plans can be downloaded from www.educate.org.uk. You might like to look at some schemes of work from the website to get an idea of the topics that are covered at different levels in various subjects. Below is a synopsis of a scheme of work for a science topic:

Atoms and Molecules – for Year 8 (pupils aged 12/13)

Where the unit fits in

This unit relates closely to [unit 7G 'Particle model of solids, liquids and gases'](#) and [unit 7H 'Solutions'](#), in which the particle model is introduced and developed. However, if teachers wish to introduce the idea of particles through elements and compounds, it could be taught before these units. The unit provides a foundation for [unit 8F 'Compounds and mixtures'](#), [unit 9E 'Reactions of metals and metal compounds'](#) and [unit 9F 'Patterns of reactivity'](#). The historical impact of ideas about atoms is covered in [unit 21 'Scientific discoveries'](#) in the history scheme of work.

Expectations

At the end of this unit in terms of scientific enquiry most pupils will: select information about elements and their properties from a range of secondary sources; describe how to deal with hazards when preparing oxides; identify an approach to finding out whether a material is an element or not and explain how their results provide appropriate evidence;

Some pupils will not have made so much progress and will: find information from selected secondary sources about elements and their properties; describe some hazards in preparing oxides and describe the results of their investigations;

Some pupils will have progressed further and will: select secondary sources to provide the information needed about elements and their properties; identify limitations of evidence obtained about whether a substance is an element or not, where appropriate, suggesting alternative explanations.

In terms of materials and their properties most pupils will: recognise that there is a small number of elements and name some of these; explain that compounds are made when atoms of different elements join together; begin to use symbols for elements and to represent reactions in word equations;

Some pupils will not have made so much progress and will: name some elements and represent these by symbols; distinguish between symbols for elements and formulae for compounds; name a wide variety of materials;

Some pupils will have progressed further and will: identify elements whose properties do not fit the general pattern of metals and non-metals; begin to represent compounds by formulae.

The scheme of work will also set out activities that could be undertaken and the resources that would be needed. You might find this helpful in identifying how you can support the teacher.

There will also be structures on checking and testing what the pupils have learned.

4.4 Topic 3 - Working with Teachers

4.4.1 Undergraduate's Role and Commitment

The key point to remember is that you are **not** a teacher. You are there to support the work of the teacher.

Supervision

³⁵/₁₇ You will be under the supervision of a class teacher - if you need help or advice, don't hesitate to ask.

³⁵/₁₇ Always work in sight of a teacher or other adults.

³⁵/₁₇ If you are not working in a classroom you must ensure you **never** work in a closed room alone with the pupils.

Confidentiality

³⁵/₁₇ If a teacher talks to you confidentially about a pupil, the information must not be passed on to anyone else.

Time Commitment

³⁵/₁₇ Agree in advance with your teacher how much time you will be giving and the date and time of your Sessions. Ideally you will spend between 3 and 4 hours a week in the school.

³⁵/₁₇ If you are unable to make that time it is essential to advise the teacher as soon as possible and always try and make alternative arrangements.

Undergraduate tasks

³⁵/₁₇ The teacher decides what tasks the undergraduate undertakes each week. Discuss your area of expertise with the teacher in detail in order to help them identify a suitable task for you. Looking through the programmes of work might help you to identify areas where you feel you can make the greatest contribution.

Behaviour Management

- ³⁵/₁₇ Teachers are responsible for the pupils, morally, legally, and for health, insurance and discipline issues.
- ³⁵/₁₇ However the undergraduate should ensure that the behaviour of those pupils s/he is working with promotes a good learning environment.
- ³⁵/₁₇ If you set boundaries for acceptable behaviour with children they must always be **clear, consistent, firm and fair.**

Liaison with the Teacher

- ³⁵/₁₇ You will have the opportunity to meet the teacher in advance of beginning tutoring. You should be clear about what you are going to be doing, how this fits in with what the teacher will be doing, what to wear and how to address the teacher in the classroom;
- ³⁵/₁₇ Arrange a chat with the teacher after each session to get feedback and to discuss likely content of the following week's lesson. Where this is not possible you should at least talk on the telephone. How easily you are able to do this will depend on your individual relationship with the teacher;
- ³⁵/₁₇ During your normal working hours, teachers are likely to be with classes, so it will be important to set up arrangements for communicating that are mutually convenient. Teachers' working arrangements mean that they cannot be as readily contacted by telephone or email as many undergraduates will be used to.

Don't hesitate to ask for advice from one of the course co-ordinators if there is a problem.

4.5 Topic 4 - Working with Pupils

4.5.1 Behaviour Case Studies

During the training day, you may consider various scenarios with your trainer that you might come up against when working with pupils, and some appropriate strategies for dealing with various different circumstances. Examples of such scenarios are:

- ³⁵/₁₇ Crying child;
- ³⁵/₁₇ Child injures themselves;
- ³⁵/₁₇ Misbehaving or disruptive child (any age);
- ³⁵/₁₇ Inappropriate requests (“can you lend me a fag/50p etc.”);
- ³⁵/₁₇ Information passed to you “in confidence”;
- ³⁵/₁₇ Information about the teacher passed to you “in confidence”.

Remember:

- ³⁵/₁₇ The teacher is always in charge. S/he knows the students, has been fully trained in how to cope and is experienced. You should always alert teachers to any problems as soon as possible and hand over to them;
- ³⁵/₁₇ If there is a problem in the relationship between you and an individual pupil, you should either talk to the teacher or one of the course co-ordinators for guidance as soon as possible;
- ³⁵/₁₇ **NEVER ALLOW YOURSELF TO BE ALONE WITH ANY PUPILS UNDER ANY CIRCUMSTANCES**

4.5.2 Tutoring Dilemmas

The following “dilemmas” are all based on real experiences of previous student tutors. You are not likely to encounter all of these problems but it will help you to understand your role better if you can try to envisage what would be the best course of action when faced with these potentially difficult situations. The scenarios below are deliberately ambiguous in terms of subject, type of school and the gender, age and ability of the pupils. Read through them and decide how you would react trying to place them in the context of different pupil groups (i.e.

Primary, Secondary, Sixth Form, Special Needs, etc.). You should try to complete this exercise BEFORE attending the training day.

Please make sure you have read and understood all our recommended “DON’T” responses.

1. On your first day of tutoring, the teacher, who has not worked with student tutors before, tells you that they would like you to spend all lesson making displays of children’s work. What do you do?

DON’T: Spend the duration of your placement doing nothing except this type of activity.

2. It is your first day in class and you are introducing yourself to a small group of pupils. They start sniggering and whispering to each other. What do you do?

DON’T: Embarrass or intimidate the pupils.

3. You are working with a group of pupils who are completing individual work programs on a computer. How do you work with these pupils?

DON’T: Just wander around peering over their shoulders.

4. One of the pupils you are working with is behaving in an over-affectionate way with you. How do you react?

DON’T: Compromise yourself in any way.

5. An important seminar is rescheduled at the last minute and you realise that it clashes with your last intended school visit. What do you do?

DON’T: Forget to sign off from the school properly.

6. You are working with a small group of pupils while the teacher is working with the rest of the class. One girl refuses to do the set task because she says she thinks it is boring. What do you do?

DON’T: Shout at the pupil and try to make an example of her in front of the others.

7. As you are leaving school you see two boys in a serious fight outside the school gates. What do you do?

DON'T: Simply jump in and risk putting yourself in personal danger and/or subsequent prosecution.

8. A pupil you have been working with tells you in confidence that another member of class has been bullying her/him. What do you do?

DON'T: Just ignore the situation and pretend it did not happen.

9. Whilst you are trying to persuade a disaffected pupil to start working, they ask you if you have ever taken drugs. What do you say?

DON'T: Just say "yes".

10. Please include your own "tutoring dilemma" below together with the action you would take if confronted with the situation. You might like to discuss this with the rest of the group.

DON'T: Leave this blank!

As a responsible adult, you should be able to respond to any difficult situation with **CAUTION** and **COMMON SENSE**, but if you are in any doubt about how to deal with a problem during your placement you should speak to the teacher and/or course tutor **WITHOUT DELAY**.

If you have not been able to answer any of the questions above, ask your trainer and make sure you have fully understood how to deal with each situation before completion of the training day.

NEVER ALLOW YOURSELF TO BE IN A ROOM WITH PUPILS WITHOUT A TEACHER PRESENT.

4.5.3 Encouraging People to Talk - Questioning and Listening

Questioning is an important part of establishing a rapport with a person. The way questions are asked can open up a rapport or close a relationship down. It is worth considering the kinds of questions that may be asked.

Closed Questions and Leading Questions

Closed questions encourage a yes or no answer, while leading questions seem to anticipate a particular set of responses. An example of closed questions is: "*Did you understand that?*"

Closed questions are useful for collecting facts but if too many closed questions are used it tends to close down the relationship and stop the free flow of discussion. Shy people, in particular, find it hard to respond to questioning. By asking closed questions they are not encouraged to open up and talk freely.

An example of a **leading question** is: "*So, you all understand that now?*" The respondents will find it very difficult to answer in any way other than has been indicated so **leading questions should be avoided**.

Open Questions

The questioner wants to find out what the respondent thinks and this kind of question encourages a free response. For example: "*Which parts of the course are you finding the most enjoyable?*" "*Why is that?*" **Open questions** encourage the student to talk and give their views or experiences.

Testing Questions

Testing questions are asked to test if something has been understood or learned satisfactorily. You may wish to check up if the students have understood something or if they recollect some fact given to them in the past. "*Do you remember what that means? Tell me.*" "*Please explain that to me.*"

Exploring Questions

These questions are used to prompt and help develop a train of thought, to encourage reasoning and problem solving, for example: "*What do you think that this experiment might show?*" "*How might this project help a business?*"

Listening

Listening is as important as questioning, if not more so. Attentive listening makes the person feel that their ideas and views are important. It helps them feel supported in decision making and learning. You should try to start your reply or comments on the basis of what the student has said. Remembering between sessions what individual students have said is important.

Giving Feedback

Giving feedback is an important part of working with learners. Feedback should be non-judgmental, honest and consistent. Try to give a feedback sandwich: positive, negative, positive. For example, if a student has given the wrong answer ask why they said that, correct them, giving an explanation as to why they were wrong as well as why the right answer is right. Then provide positive encouragement to the next stage. Leaving students with a negative feeling may cause them to lose interest in the subject or the project.

Active Listening Techniques

Type of Statement	Aim	Method	Examples
Encouraging	³⁵ / ₁₇ To convey interest	Don't agree/disagree	<i>"I see"</i>
	³⁵ / ₁₇ To keep the person talking	Use noncommittal words with a positive tone of voice	<i>"Uh-huh"</i> <i>"That's interesting"</i>
Restating	³⁵ / ₁₇ To show that you are listening and understand	Restate the other's basic ideas, emphasising the facts	<i>"If I understand, your idea is ..."</i>
	³⁵ / ₁₇ To let the person know your grasp of the facts		<i>"In other words, this is your decision..."</i>
Reflecting	³⁵ / ₁₇ To show that you are listening and understand	Restate the other's basic feelings	<i>"You feel that ..."</i>
	³⁵ / ₁₇ To let others know you understand their feelings		<i>"You were pretty upset by this ..."</i>
Summarising	³⁵ / ₁₇ To pull important ideas, facts, etc. together	Restate, reflect and summarise major ideas and feelings	<i>"These seem to be the key ideas you have expressed..."</i>
	³⁵ / ₁₇ To establish a basis for further discussion		<i>"If I understand you, you feel this way about the situation..."</i>
	³⁵ / ₁₇ To review progress		

The Assertive Listener

Self- Evaluation

This is a short questionnaire that will help you to assess your strengths and weaknesses so that you can improve your listening skills.

Discuss your answers with your trainer or course tutor.

	True	False
1. I give the speaker my complete attention and don't allow myself to be distracted easily.		
2. When I'm distracted by my environment, I take assertive action to remove the distraction before asking the speaker to continue.		
3. I keep good eye contact, neither staring nor averting my eyes.		
4. I'm responsive through my body language while the speaker is talking (e.g. smiling, nodding).		
5. When I'm on the telephone, I give my full attention; I don't secretly do something else at the same time.		
6. I don't constantly interrupt.		
7. I don't finish other people's sentences.		
8. I don't use every opportunity to turn the conversation on to myself ('the egocentric listener')		
9. I take notes of complex instructions, of meetings and lectures, rather than relying on my memory, and to assist my concentration.		
10. I try not to let my emotions on a topic affect my ability to listen objectively.		
11. I try not to make assumptions or jump to conclusions.		
12. I often summarise or repeat back what the speaker has said to check that I've understood.		
13. I ask questions for clarification (e.g. 'Can you give me an example...?').		
14. If I don't understand, I say so, and ask the speaker to repeat, to slow down, to speak up, or to spell unfamiliar names as appropriate.		
15. I ask open-ended questions (beginning with who, what, how, when, where and why?) to find out more and to encourage the speaker.		
16. I am a patient listener.		
17. I am an active and assertive listener.		

Reproduced from *Training for Assertiveness*, Lucy Seifert, Gower, Aldershot, 1994

4.5.4 Questioning Techniques

Questions to you

Accept questions at any time to encourage participation

Treat all questions as having equal importance

If you don't know the answer: don't bluff, say you'll find out (ask the teacher and tell them later)

Questions to others

Take care not to embarrass anyone who gives a wrong answer

Resolving contradictions can be good learning experiences. Build on individual answers using

open and exploring questions

Questioning a Group

Use a routine for asking questions e.g. Question – Pause – Name a respondent

Don't allow calling out

Ensure a random distribution of respondents

Avoid indicating who must answer until everyone has had time to think

Questions to Avoid

Leading: Compare the likely responses to "isn't that the best way to do it?" with "is that the best way to do it or can you suggest another?"

Built in Answers: "5 per cent of 23 is 1.15 isn't it?"

Multiple: "So what's the next stage? What would you do next? What would help you to find the answer?"

Read my Mind: Do you want to explore other people's ideas?... or for them to guess yours?

Complex: Match language, etc, to pupil's level. Plan how, why and when to expand vocabulary

Vague: The pupil should know exactly what you are asking

Trick: Think about what purpose a question serves. These types of question are often used to make someone appear foolish

4.5.5 Elements of Body Language

Body language involves giving signals about feelings and content; it's how the body expresses itself separately from the words themselves. It can indicate anger, fear, nervousness, hurt, joy or love. It can say 'I respect you and want to get to know you' or 'Stay away from me!' Assertive body language reinforces the message of the words; non-assertive body language confuses the message. Assertive body language is appropriate to the message. For example, a news presenter would look serious when describing a natural disaster. A smiling face could confuse the audience as well as cause offence.

This list is primarily for you to be aware of your own body language and it will help you present yourself to students but it will also help you to "read" the students better.

Body language includes

- Accessories*
- Breathing
- Cosmetics
- Clothes
- Smell
- Eye contact
- Facial expression
- Gestures
- Hairstyle
- Handshake
- Nervous habits
- Non-words**
- Pacing
- Personal space
- Physical contact
- Posture
- Presence***
- Spectacles / contact lenses
- Tattoos
- The car you drive
- The dog you walk
- The newspaper you carry and/or read
- Voice / speech pattern (volume, pitch, fluency)

* Accessories include badges, cufflinks, handbag, jewellery and watches.

** Non-words are superfluous words that add nothing to the meaning and can form a nervous, distracting habit. Examples are 'you know' and 'I mean'.

*** 'Presence' is the atmosphere around a person and the emotional impression they make. 'Presence' can even remain in a room when the person is not. For example, their aggression or nervousness can enter a room before them and remain there after they have gone.

The body gives out powerful messages. The impact of messages can be approximately 20 per cent word content, 25 per cent vocal (quality, volume, pace and tone of voice) and 55 per cent visual impression. When you walk into a room you can announce your age, sexual orientation, ethnic origin, status, gender, class, mood, sense of humour and level of confidence – all this without speaking one word. However, be aware that body language can be affected by factors such as culture, nationality, tradition, family background, disability and individual mood. (Reproduced from *Training for Assertiveness* by Lucy Seifert, Gower, Aldershot, 1994)

Assertive Body Language

Again, this information is primarily to help you to present yourself to the pupils but it will also help you to “read” them better.

Breathing

Steady. If you’re feeling nervous about handling a situation relax with deep breathing exercises, breathing in through the nose and counting to five, breathing out through the mouth and counting to five. This helps slow down your breathing and can lower your anxiety level.

Clothes and Accessories

Clothes should be comfortable, suitable for the climate, environment and occasion. They should be a reflection of you, while also acknowledging the people you’re with. You should also check with your school if they have a particular dress code.

Eye Contact

Direct without staring or glaring. Look outwardly at others, rather than being constantly involved with looking inwards at yourself. Eye contact helps you listen and concentrate, and the other person feels valued.

Facial Expression

Appropriate to the words and the feelings. If angry, look angry and don’t smile; if happy, smile. Relaxed mouth and jaw.

Gestures

Expressive but not distracting. Open-handed. Don’t fidget or engage in distracting habits like nail biting, tapping on the table or putting your hand over your mouth.

Personal space

This includes distance and height. Appropriate to the situation and degree of familiarity. Comfortable distance. Respect the other person’s space.

Posture

Upright but not stiff when sitting or standing. Uncrossed legs when sitting.

Voice and Speech Pattern

Steady, fluent. At a good level so that you can be heard without being intrusive. Leave appropriate silences; don't fill gaps or give yourself extra thinking time by using non-words like 'really', 'well', 'right' and 'you know'. Steady pace of speech, without abrupt acceleration, deceleration or hesitation.

Summary

Assertive body language is appropriate body language; it confirms and enhances what you say instead of confusing your message through inappropriate facial expression or tone of voice. It's reinforcement, not a distraction. It can also empower you by building an inner sense of self-esteem, which, in turn helps you behave assertively.

(Reproduced from *Training for Assertiveness* by Lucy Seifert, Gower, Aldershot, 1994)

4.5.6 The Learning Process

Memory

It takes years of learning and practice to develop and acquire the use of memory as a learning tool. A 5-year old's ability to concentrate, and therefore to memorise, is non-expert and their approach appears to be cursory and haphazard. By the age of 11, children have learnt how to structure what needs to be memorised (e.g. categorisation).

Try to get the pupils you work with to remember what you did with them on the previous visit. This will help to reinforce the progress made, and will help the pupils to build on memorising skills.

Concentration

Younger children can have impulsive and brief attention spans.

³⁵/₁₇ When dealing with them on a one-to-one basis, start with general chat to find out what their concentration is like

³⁵/₁₇ Tune in to their responses - it is much easier to employ different ways of approaching the task if you know how your pupils are likely to react

³⁵/₁₇ Use a limited time for each activity (don't labour a point if the pupil does not show interest)

Wholes and Parts

Children under the age of 6 do not generally recognise a larger whole made up of smaller parts. So don't expect them to get the 'Big Picture' - help them to create it by using the parts they know.

Instruction Techniques Which Work

Use your own positive learning experiences that have worked well for you.

³⁵/₁₇ If the child struggles, judge how soon you need to intervene. Too hasty and it looks as if you do not have confidence in them, but too slow and they will start to get over-anxious

³⁵/₁₇ Try to always use a 'Can Do' attitude

³⁵/₁₇ Try to relate the subject to the child's own experience - this way they can understand it better rather than be left with an abstract concept

Always try to end each session on a positive note

4.5.7 Four Ways of Learning

1. Trial and Error

What Is It?

This is probably the simplest form of learning. Learners try to do something and learning takes place when they succeed or fail in their attempt. People who do not have time to train thoroughly often use it. Common phrases used are "Oh you'll soon pick it up" or "You'll learn as you go along".

Advantages

Little preparation required
Minimal resources needed

Disadvantages

Lots of mistakes made at the outset
Can de-motivate
Feeling of isolation

How to Use Trial and Error as a Learning Tool

Opportunities for practising trial and error learning should be created around practical, realistic activities. The opportunities should be learning events that are structured rather than unstructured, i.e., events that the trainer has carefully planned. An important feature of trial and error is reinforcement either by praising and confirming that the attempt was correct (positive reinforcement) or constructively criticising for making an incorrect attempt (negative reinforcement).

2. Being told

What Is It?

The basis of this way of learning is that the learner receives some information (words, symbols or figures) from the trainer, e.g. the Highway Code when learning to drive. The entire content of what is to be learnt is presented to the learner in a final form: "Sit down and I'll tell you what you need to know" or "Listen carefully, I'll just go over what you have to do".

Advantages

Quick for trainers
Can deliver lots of information to a large number of people
Limits questions and discussion

Disadvantages

Limits independent thought - no improvement in process

Does not encourage interaction between learners

Creates more questions after training

How to Use Being Told as a Learning Tool

Useful for situations where there is a clear-cut body of knowledge with a minimum amount of ambiguity and where the task does not require the learner to make any independent discovery.

How much a learner learns depends upon:

The amount to be remembered

If it is only a small amount, the learner can simply be told. A larger amount of information should be presented in written form for referral.

The complexity of the information.

With more complex topics, it is usually better to represent the information visually as well as orally.

3. Imitation

What Is It?

In learning imitation, a learner observes somebody performing a task which the learner then attempts to imitate, e.g., "Sit next to Nellie, you'll learn a lot from the way she does things" or "Just watch me, I've been doing it for years".

Advantages

Help and advice is always available

Learn from an experienced person

Informal

Disadvantages

Learn bad habits

Limited to individuals and small groups

Time consuming - may lead to resentment from trainer

Personality conflicts

How to Use Imitation as a Learning Tool

The 'model' which a learner imitates should be a positive influence on a learner's behaviour by demonstrating the correct way to do something. The method of learning requires careful consideration by the trainer - if it is ill-prepared and unstructured, the learner will be exposed to (and learn) probably as many bad working practices as good ones.

4. Thinking

What Is It?

Learning can occur when a learner is encouraged to think about an experience and reflect on it in learning terms. Using such questions as "Why do you think that happened?" and "What would you do if you were to repeat it?" the trainer is able to create a learning event within which complex situations can be thought about and discussed.

Advantages

- Lends itself to group discussion and feedback
- Retained in memory for longer
- Carry out difficult procedures in a controlled environment

Disadvantages

- Requires skilled trainer
- Can be challenging to some people
- Time consuming

How to Use Thinking as a Learning Tool

It might be that there is not a simple, clear-cut answer. The learner might be presented with a number of options, each one having some advantages to offer. Learning can take place when the learner has to evaluate the options, draw conclusions, consider consequences and generally 'think through' the situation. Some factors to be taken into account include:

The maturity and experience of the learners relative to the thinking required. What is a complex and demanding thinking experience for one learner becomes a simple situation all too easily solved for another.

4.5.8 General Guidelines for Good Practice

Make yourself aware of school policies in relation to:

- **Drugs, Health and Safety, Discipline, Equal Opportunities, Child Protection**
- It is VERY important that you follow these policies AT ALL TIMES
- In the event of fire stay with the people you are with at the time, find the nearest fire exit

Accident/Illness:

- Ensure you know ALL pupils' medical needs and medication (E.g. Epipen, Inhalers, Tablets etc)
- At NO time administer ANY medication
- ALWAYS follow school procedure

Special Needs: Make sure you are aware of the special arrangements for any children with SEN, such as dyslexia, in the classes you will be supporting

Child Protection:

- **This is ESSENTIAL: Make yourself aware of and STRICTLY follow the school policy.**
- Who and where is the Child Protection officer? - introduce yourself
- Under NO circumstances arrange to meet pupils outside the formal sessions
- NEVER leave your pupil/s for any reason; stay with them until appropriate cover is found

Your Illness: In the event of illness, the Course Tutor and the school link teacher must be informed as soon as possible

Difficulties: Do NOT try to resolve ANY major problems alone. Talk to your Link Teacher or Course Tutor if unsure. If in doubt about a situation, terminate the session early. SEEK ADVICE

Clothing: Follow the school's dress code for staff and support staff at all times

You will be asked to complete forms confirming your acceptance of the module's confidentiality and child protection procedures.

4.6 Topic 5 - Support Available to an Undergraduate

The main support will be provided through the course tutorials. Two series will operate. The first will be led by the course co-ordinators and will provide a check on progress, the opportunity for interim feedback and assistance and give further details of forthcoming activities and assessment. The second will be run by and for the students taking the module alone. These will provide the opportunity for full and frank discussion (subject to normal rules of confidentiality) together with mutual advice and support.

More formal individual advice and support is available from the course co-ordinators, or your link teacher, as appropriate. The purpose of the form below is to provide you with a personal record of who is available to help you when needed. **Home telephone numbers should only be used in exceptional circumstances.**

Sources of Help for Undergraduates

Organisation	Contact Name(s)	Address	Telephone No.	E-Mail
School Teacher Head of Dept Head Teacher Link Teacher				
University Course Tutor	Dr Paul Mitchener	Room J20	Work 2223858 Home 2481830	p.mitchener@sheffield.ac.uk
Others				

4.7 Topic 6 - Action Planning Session

4.7.1 Session Planning

Before the start of the module, you will need to meet with your assigned teacher to discuss in detail what your role will be in the classroom, what subjects will be covered during the semester and what your mutual aims and objectives will be for the semester. You should feed the outcomes of this discussion back into your list of targets for the course. You will also need to make sure that you have all the relevant information about the school and placement. Some of the factors you need to consider are listed below and on the following page. Remember that school and university terms are not synchronised. In particular, you may need to make some school visits during the University's Christmas and Easter vacations.

Before each lesson you should also aim to create a plan of what you will be doing and what you expect to achieve in that session. Always discuss this with the teacher in advance of the lesson.

Basic Action Planning

Contact details:

Head Teacher's name

Link teacher's name

Class teacher's name(s)

School address

Telephone number

Main school email

Other useful email address (e.g. teachers')

School day

Start time

Lunch times

End

Break times

Dates of holidays

Placement day and time

Travel

Map of School? Parking? Method/Route of travel to school?

Identification of Role

Have you talked to the teacher about how they see you working with the class?

If so, what are the major targets and success criteria?

What steps will have to be made to ensure they are achieved?

Who or what is needed to help you get over any barriers to these targets?

Other Key Issues

Time commitment

Support of a manager?

Equipment

Notification to parents of off-site trips

Knowledge of what exists already in school in terms of schemes, awards, resources.

Funding or sponsorship.

Giving Instructions

³⁵/₁₇ Preparation

³⁵/₁₇ Clear aims and objections

³⁵/₁₇ Concise and easy to follow

³⁵/₁₇ Consider learning preferences

E.g. visual/auditory/kinaesthetic/sequential/holistic

³⁵/₁₇ Use visual/written examples to aid your presentation

³⁵/₁₇ Check understanding – how?

³⁵/₁₇ Ask for questions

³⁵/₁₇ Be prepared to repeat instructions

³⁵/₁₇ Check understanding

Planning Your Tutoring

³⁵/₁₇ How do I want to be introduced to the learners?

³⁵/₁₇ What do I/the teacher want them to call me?

³⁵/₁₇ What does the teacher expect of me?

³⁵/₁₇ How am I going to learn their names?

³⁵/₁₇ How am I going to encourage them to talk to me and ask questions?

³⁵/₁₇ How am I going to encourage them to listen to me?

³⁵/₁₇ How can I help them/other staff to understand my role in their classroom?

³⁵/₁₇ Where am I going to sit/stand?

³⁵/₁₇ What strategies will I use to help people understand me?

³⁵/₁₇ How will I know when they have understood?

³⁵/₁₇ When am I doing the next visit, and what will I be doing?

Session Planning - Activity Plan Example

Date: 5 November 2002		Class/Group: 5b (whole class)	
Activity: (description and lesson learning context/prior learning) Being a Student talk and poster as a self initiated project. Exercise will build on informal chats in the classroom throughout my placement with the poster as an end focus point to remind the pupils of student life after I have gone.			
What do the pupils/learners know already? Some pupils have asked me questions about university life, but not all have had a chance, so there is little or no awareness of university apart from knowing it's a place that I come from.			
What do you want the pupils/learners to do? To listen to my brief talk, ask a few questions/say their ideas and then make posters in groups, showing what they think being a student is like.			
What do you want them to have learnt? (Key concepts and ideas) In basic terms: What a university is. An idea of what it is like to be a student. That anyone can go to university.			
Communication with teaching/other staff: Arrange with teacher to run the activity on my last visit and go through the content with her, to make sure it is appropriate for the class and seek advice			
How are you going to do the activity? <u>Introduction:</u> Give prepared short talk on being a student and what university is, stressing that all sorts of people go, keeping it simple as the children are 8 years old and for many, this is the 1 st impression they will have. I will use pictures to make it more captivating. <u>Main Activity:</u> After some Q&A's and prompting of ideas the class have of me, they will work in their usual groups and make a poster of what it's like to be a student. I will get them to imagine themselves at my age and what they think they would like to do/be as a student. I will give each table some photos that I took as a 'day in the life' snapshot of me as a student to help them create a picture/written poster. I will move between groups and chat further about their ideas. <u>Summary:</u> When the class have finished their posters, we will all look at them and get each group to say their favourite thing about the poster/what they have learnt about being a student. I'll give them all a 'prize' and thank them for welcoming me in.		Timeframe 5mins 20mins 5 mins	
Resources: Pictures of university/halls bedroom/union. Photographs of various aspects of my life as a student. Arrange with teacher access to poster materials			
Outcome/End Product: Posters to display in school. That the pupils have learnt at least 1 thing about being a student/university			
Review of Activity: I should have been more prepared for a variety of questions. Got feedback from teacher, who praised the level I had chosen to pitch at. Pupils enjoyed the posters and have decided to display them in the school entrance			

5. THE ASSESSMENT PROCESS

5.1 Overview

Every effort has been made to ensure that this assessment framework enables this module to match the academic rigour of equivalent level 3 modules. However, the module is very different in nature from all other SOMAS courses and students should be particularly careful to understand what is required of them and how this may be achieved. In addition to the details below, an assessment briefing will be held later in the course to provide further guidance. It is important to understand that students are not assessed to any great extent on the basis of whether or not they will make a good teacher, but on the extent to which they show that they have learned skills, developed an understanding of the educational environment in which they are working and related issues.

The specific learning criteria for the course are:

- 1) **Communication Skills**
- 2) **Working with Others**
- 3) **Organisation, Reliability and Self-Management**
- 4) **Initiative and Creativity**
- 5) **Identifying and Understanding the Educational Needs of Others**
- 6) **Self-Analysis, Reflection and Critical Evaluation.**

Further details are given in Section 5.2.

The assessment is based on five main elements weighted as indicated:

- 1) **Weekly Diary (10%)**
- 2) **End of Module Report (35%)**
- 3) **Account of Special Project (20%)**
- 4) **Oral Presentation (20%)**
- 5) **Teacher's Assessment (moderated by module coordinators) (15%)**

Further details are given in Section 5.3.

5.2 Learning Criteria

Staff will be looking for evidence of improvement in the following areas:

1) Communication Skills

For example

- 1a) Use a style and content of spoken language which is appropriate for the context and which engages the interest of the audience (individual or group).
- 1b) Listen actively, ask questions, clarify points and rephrase others' statements to check mutual understanding.
- 1c) Produce and use written material effectively.
- 1d) Produce and use visual and media images effectively.

2) Working with Others

For example

- 2a) Clarify specific role, negotiate arrangements and agree targets for tutoring with appropriate staff at the placement, balance own views with the needs and views of others.
- 2b) Establish and maintain effective working relationships with teachers and pupils/learners and conclude relationships amicably.
- 2c) Identify and recognise explicit and implicit organisational features and personal characteristics of yourself and others that inhibit the development of effective working relationships, and take appropriate action.
- 2d) Review progress in working towards targets and request, receive and offer appropriate feedback.

3) Organisation, Reliability and Self-Management

For example

- 3a) Plan, organise and prepare thoroughly for tutoring and complete all necessary monitoring and evaluation documentation conscientiously and punctually.
- 3b) Manage time effectively.
- 3c) Take personal responsibility for completing agreed actions competently, justifying and rationalising decisions made and showing appropriate self-control and self-confidence.
- 3d) Take personal responsibility for identifying and meeting own learning and skills development needs.

4) Initiative and Creativity

For example

- 4a) Take independent action where and when appropriate.
- 4b) Develop innovative and creative solutions to problems and challenges and critically review their implementation.
- 4c) Provide the pupils with innovative resources or guide them towards innovative and/or complex resources that will result in explicit educational achievement by the pupils.
- 4d) Suggest improvements to practice as appropriate.

5) Identifying and Understanding the Educational Needs of Others

For example

- 5a) Provide the pupil/learner with basic resources or guide them towards basic resources that will result in explicit educational achievement by the pupil/learner.
- 5b) Evaluate and assess the work of the pupil/learner and give feedback designed to improve pupil/learner performance in the future.
- 5c) Identify attitudes, values and motivations that may inhibit pupil/learner educational aspiration and attempt to find ways to overcome these barriers.
- 5d) Discuss own educational aspirations and achievements with pupils/learners, including what it's like to be a university student.

6) Self-Analysis, Reflection and Critical Evaluation

For example

- 6a) Identify and evaluate own levels of competence in each learning criterion.
- 6b) Demonstrate the ability to analyse problems and identify possible resolutions with practical action.
- 6c) Demonstrate the ability to focus activity on areas of strength and plan improvements in areas of weakness.
- 6d) Critically evaluate overall progress against initial targets and action plan.

Progress in each of these areas should be reflected in your weekly log book and report.

5.3 Assessment Methods

5.3.1 Weekly Diary

The Weekly Diary is designed to provide a resource for the writing of your final report. You should use identify in it, **as you go along**, events, and subsequent reflections on them, which indicate that you have: (a) made a progressive improvement in the learning criteria identified in Section 5.2; (b) acquired the various key skills; (c) developed a working understanding of the school environment; and (d) approached your various tasks in a structured and systematic manner. It will also be used by the course tutors to determine the extent and nature of your engagement with the course, contributing 10% to your final mark.

Whilst you are entitled to keep your **Diary** confidential from your placement teacher, or anybody else in your placement school, it will be assessed by the course tutors at the end of the module.

Three different log sheets are provided:

Weekly Log Sheet - undergraduates should complete and file one of these after every session.

Observation Log Sheet - for use after the first session with the teacher only.

Special Project Log Sheet - for use after the undergraduate has delivered their Special Project.

Examples of all three types are included below and blank templates will be provided electronically for actual student use.

Advice on Completing the Log Sheets

³⁵₁₇ Complete sections as fully as possible. You may not have experiences to record under each section each week (as in the example below), but you should always try to identify future improvement targets in section 6.

Refer to the examples and assessment briefing guidelines to help you use the right content and style.

³⁵₁₇ Be selective in what you choose to write about. You are not expected to be able to report everything you do in the classroom, but you are expected to select the experiences that you can write about in a reflective/evaluative way. You will be assessed on quality rather than quantity of contribution and reporting.

³⁵/₁₇ Do not merely describe what you did. Each example of your work should follow the process of what you did, why you did it, and what happened as a result. You should also include suggestions of how you might improve what you did the next time (and follow these up subsequently).

³⁵/₁₇ You should aim to link each situation or example of your work with the specific assessment criteria outlined in the assessment briefing, so that you are able to chart your progress in each aspect. You may do this explicitly by noting the relevant criterion in the text (as in the example), though it is less intrusive if you do so in the margin.

³⁵/₁₇ Do not be vague in writing up your evidence. Sing your own praises and don't be afraid to say 'I did this', 'I did that'. Do not write passively as though anyone could have done what you are writing about.

³⁵/₁₇ Ensure you do not compromise confidentiality; refer to pupils by initials rather than full names (as in the example).

³⁵/₁₇ The 'Observation Log sheet', is intended to give you the opportunity to observe others' competence against a range of the learning criteria, in order to help you analyse and develop your own competence.

Example log sheets are shown below; the weekly log has been completed to illustrate an appropriate style (though there are other possibilities).

EXAMPLE MAS302 WEEKLY LOG SHEET

Student Number: _____

Date: _____

Action points identified from previous visit. (*Maximum 30 words*)

Keep it simple and specific!

Tutoring context & session content (*Maximum 50 words*)

With reference to the Learning Criteria (1 to 6) outlined in Section 5.2 of your Handbook, give examples of actions you have taken that demonstrate achievement or progress in each area. Describe the methods or techniques used (with reasoning), along with evidence of success or need for improvement. Continue on a second sheet if required. (*Maximum 150 words per element*)

1) Communication

Working with a group of six Year 7 pupils I noticed that 'L', who has hearing difficulties, had not started the maths activity. I sat down at L's level, and spoke slowly and clearly, facing him, so he could read my lips (1a). I felt that L might feel inadequate, so I told him how my older sister used to help me with my Maths as I struggled with division until I learnt her way of working them out. I asked him if he had understood the activity instructions (1b) and he said yes. Even so, I explained the instructions again and completed an example of the sums the class were being asked to complete, explaining the processes as I worked it out (1c). L smiled and I watched him do the next example by himself correctly (1b).

2) Working with Others

3) Organisation, Reliability and Self-Management

4) Initiative and Creativity

5) Understanding the Educational Needs of Others

Today the class had to imagine themselves in 15 years time. I saw this as an opportunity to ask if they saw themselves at university like me, and, with a small group, told them briefly how I got to university. I then got each of them to explain why they did or didn't see themselves going, sitting back to let them express themselves and explain to each other their own pros and cons. Two of them said they would go, whilst the others argued it wasn't for them. I asked why, and as they gave reasons, such as money, I would say 'that might be true, but in many cases you don't have to spend as much as you think'. This ensured that their opinion was still of value and I could give accurate information. We agreed that we would all think about university away from the class and I would ask them in 2 weeks if their opinions had changed.

6) Use critical self-evaluation to identify three specific improvements you can make in the future:

- i)** I will read up on learning difficulties so that I can recognise problems and make sure I give the most appropriate support.
- ii)** I will try and encourage the pupils to express their own ideas more by engaging with their topic of conversation as well as my own.
- iii)** I want to talk to Mr. W before the session next week about group work and how I can rotate my time to maintain fairness and the chance to help all class members.

MAS302: Observation Log Sheet

(For first session only)

Student Number: _____

Date: _____

Lesson / tutoring context. Observation method (80 words maximum)
(shadowing teacher, assisting teacher, watching from rear of class, etc)

Observations (200 words maximum)

Make sure you include references to specific competence shown by the teacher, using the learning criteria on page 41 of your Handbook. (Include examples in which you think the teacher managed a situation particularly well or badly, and how pupils responded to different actions).

Analysis and conclusions (200 words maximum)

Comment on what you feel you have learned from your observations, with particular reference to Communication Skills and Working with Others.

Identify three specific features you think you can transfer to your own tutoring:

- 1)
- 2)
- 3)

MAS302: Special Project Log Sheet

Student Number: _____

Date: _____

Brief description of context for and content of Special Project (*maximum 100 words*)

With reference to whichever of the Learning Criteria you feel to be most appropriate from the outline on page 41 of your Handbook, describe the methods used in your Special Project, the reasoning behind them, the expected outcomes and the actual outcomes. Use at least three different Learning Criteria and give examples of how well you think these were met by your delivery of the Special Project. Continue on a second sheet if required. (*Maximum 150-200 words per element*)

1) Communication

2) Working with Others

3) Organisation, Reliability and Self-Management

4) Initiative and Creativity

5) Understanding the Educational Needs of Others

6) Use critical self-evaluation to identify three specific improvements you could make in the future:

i)

ii)

iii)

5.3.2 End of Course Report

The **written report** you present at the end of the module should be around 4000 words in length and accounts for 35% of the course mark. It is intended to allow you to evaluate critically your own progress and experiences during the module and to determine whether or not you have achieved the targets you set for yourself at the beginning of the module. It is also intended to provide evidence for the assessing course tutor of acquired skills and understanding of working in a professional educational environment.

The report should demonstrate three main elements:

- 1) Research, preparation and identification of clear targets prior to commencement of module
- 2) Evidence of success in meeting targets and progress in acquisition and development of skills
- 3) Evidence of success in acquiring understanding of professional environment and educational issues

You should make use of your weekly diary and any other record of experiences used during the module, to draw together in a coherent and summative manner all of the various strands of your experiences, and to provide evidence of the level of competence you feel you have attained. You should also aim to identify and summarise how you believe the competence you have attained will affect your employability. When preparing the report, you should keep the learning criteria (see Section 5.2) in mind.

A good report will probably have a structure similar to that described below. Further guidance will be given in the course tutorials.

The report should be titled. You will need to begin with a description of the school and its students and of your reasons for undertaking the UAS. You should then discuss your first encounter with the school; both the practical aspects and the process of establishing targets for the module. The main body of the report will consist of accounts of your various experiences (both positive and negative) during the placement and how these demonstrate your progress towards the targets set. Particular lessons learnt from the conduct of your special project should be included, but the full detail of the project should be given in its own separate report. The conclusions should draw the main strands together and allow you space to express your opinions about the experience overall.

Presentation, grammar and spelling naturally influence the assessment. Help in writing reports is available in various places (e.g. project-based courses, the University English Language Teaching Centre's Writing Advisory Service (www.shef.ac.uk/eltc)) and should be sought at an early stage if required.

Students may find it easier to assess the development of their skills during the course by comparing pre- and post-placement audits of competence. A suitable form for recording capabilities is shown below and electronic copies will be made available. These are for your own use and should not be submitted to the tutors.

Example MAS302 Pre- and Post-Placement Personal Audit of Competence

Student Number: _____

Date: _____

For each of the **Learning Criteria** below, try to assess your capability using the following system:

3	I know that I am capable of doing this well in most situations most of the time
2	I consider that I am capable of doing this adequately in some situations some of the time
1	I am aware that, in general, I am not very good at doing this
0	I consider that I have not had the opportunity to evaluate my performance in this area

You should interpret the statements as they apply to you in general rather than simply in relation to tutoring. Complete this audit before your placement begins and at the end of the course. Use the results of this audit to help you to identify your own strengths and weaknesses and to help you when reviewing your **Tutoring Action Plan** and **progress against the criteria**.

3 2 1 0 1) Know how to use Effective Communication Skills

				1a) Use a style and content of spoken language which is appropriate for the context
				1b) Listen actively, ask questions and clarify points to check mutual understanding
				1c) Produce and use written material effectively
				1d) Produce and use visual and media images effectively

3 2 1 0 2) Know how to Work Effectively with Others

				2a) Clarify role, negotiate arrangements, agree targets, balance own views + others'
				2b) Establish and maintain effective working relationships with teachers and pupils
				2c) Identify and recognise organisational features and personal characteristics
				2d) Review progress in working towards targets and receive and offer feedback

3 2 1 0 3) Know how to be Organised, Reliable and Manage one-self effectively

				3a) Plan, organise and prepare thoroughly for tutoring and complete all necessary evaluation
				3b) Manage time effectively
				3c) Take personal responsibility for completing agreed actions competently and confidently
				3d) Take personal responsibility for identifying and meeting own learning and skills needs

3 2 1 0 4) Know how to use your Initiative and Think Creatively

				4a) Take independent action where and when appropriate.
				4b) Develop innovative and creative solutions to problems and challenges
				4c) Provide or guide pupils towards innovative resources
				4d) Suggest improvements to practice as appropriate

3 2 1 0 5) Know how to Identify and Understand the Educational Needs of Others

				5a) Provide or guide the pupil towards basic resources
				5b) Evaluate and assess the work of the pupil and give feedback designed to help improve
				5c) Identify attitudes, values and motivations that may inhibit pupils' education
				5d) Discuss own educational aspirations and achievements with pupils, inc university

3 2 1 0 6) Know how to Analyse and Critically Evaluate your own work

				6a) Identify and evaluate your own levels of competence in each learning criteria.
				6b) Demonstrate ability to analyse problems and identify possible resolutions
				6c) Demonstrate ability to focus activity on areas of strength and plan improvements
				6d) Critically evaluate overall progress against initial targets and action plan

5.3.3 Report on Special Project

The Special Project Report contributes 20% to your mark for the module. The precise details will depend on the nature of the project chosen, but for a typical, practical, project you should describe the content, methods, reasoning, planning, delivery and reception of your project. If appropriate, you should include sample material e.g. worksheets prepared by you, or feedback returns in an appendix. The Report (excluding appendices) is unlikely to exceed 2000 words in length. The Special Project Log Sheet should be filed with the remainder of the Weekly Diary, not here.

5.3.4 Oral Presentation

20% of the final mark awarded for this module is based on a 15 minute prepared oral presentation given at the end of the semester. The presentation will be assessed on both content and delivery. The content of the presentation can be on any subject that relates to your placement and experiences during the module. This includes your Special Project, as long as the presentation provides more depth or different information than was included in the written report.

Here are some suggested topics for the presentation:

- 1) Schools pupils' impression of university life.
- 2) Your special project.
- 3) An examination of one hour in the classroom.
- 4) Motivating underachievers
- 5) The role of IT and the Internet in the classroom
- 6) Is mathematics in school irrelevant?
- 7) Teaching is a demanding and undervalued vocation.

The primary elements on which this presentation will be assessed are:

- 1) Quality of Slides
- 2) Clarity of Delivery
- 3) Timing
- 4) Ability to Handle Questions
- 5) Structure
- 6) Interest and Correctness of Content

The presentation will be given in front of the course co-ordinators and other undergraduates who have also participated in the course.

5.3.5 Teacher's Assessment

The teacher with whom you have worked most closely in school will be asked to provide an assessment of your work. An example form is given below. Their assessment is moderated by the course tutors using evidence from their school visit (see Section 5.3.5) and contributes around 15% to your final mark.

**University of Sheffield
School of Mathematics and Statistics
Module MAS302**

Teacher Assessment Form

Undergraduate's Name:

Your report, after moderation, comprises 15% of the undergraduate's assessment for this unit, and so your care and cooperation is most appreciated. Please comment constructively on both strengths and weaknesses, as appropriate, under each of the headings below, but bearing in mind that your comments may be seen by the undergraduate. You may make particular reference to the issues and attributes listed in brackets, or any others which you consider relevant. You may continue on a separate sheet if you so wish.

1: The undergraduate's general approach and attitude (including attendance, enthusiasm, responsibility in dealing with agreed actions, initiative, the quality of working relations with school staff, disposition and attitude towards pupils and willingness to learn from the placement experience):

2: The undergraduate's appreciation of key educational issues (including grasp of pedagogic principles such as the importance of planning and preparation, understanding of learning aims and outcomes, recognition of specific issues such as learning differences and health and safety requirements, grasp of principles of the National Curriculum and appreciation of the teacher's role):

3: The undergraduate's aptitude and potential as a teacher (including oral & written communication skills, presentation skills, ability to use material at an appropriate level, use of

and responses to questioning, adherence to syllabus & learning aims & outcomes and contribution to any extra-curricular activities):

4: The undergraduate's 'special project' (including its appropriateness, originality, relevance to the curriculum, value to the school and reception by pupils):

5: Any other general comments:

Please indicate below the integer mark out of 100 that you feel is appropriate for the student, based on the following interpretations:

- 85+** Exceptional performance in all areas
- 70 – 84** A very high level of performance in almost every area
- 60 – 69** A high level of performance overall but with some development required
- 50 – 59** Good performance overall but requires development in a number of areas
- 40 – 49** Adequate performance but significant work required in a number of areas
- 0 – 39** Inadequate performance overall with areas of significant concern

I recommend this student be awarded an overall mark of:

Teacher's Name.....

Signature.....

Date.....

Thank you for completing this form.

5.3.6 Module Coordinator's School Visit

Each student will be observed by one of the module coordinators at least once during their placement. This will probably take place during the last three or four weeks of the course. The purpose of the visit is to observe the student 'in action' in the classroom in order to form a basis for the moderation of the teacher's assessment. From the point of view of the module and the skills the student will be seeking to develop, the most important attributes that are being assessed are the student's familiarity with the subject, and his or her ability to analyse a situation, to identify the critical principles and to apply and explain them in terms that can be understood by the audience. Other factors that are relevant to a classroom situation – such as control of pupils and other discipline issues, detailed knowledge of the syllabus and other aspects of teaching techniques – are not in themselves critical aspects of the academic assessment process.

5.4 Examples of Previous Special Projects

Mark – BSc Physics

Mark chose to do his special project with a class of 'top set' Key Stage 3 pupils and two Year 12 pupils. He devised theoretical and practical lessons introducing concepts of energy conservation, mechanics and material properties, which were based on squash balls. The students began by looking at actual quality control tests carried out by the World Squash Federation to ensure that all squash balls passed the 'bounce' test. Working in teams, the Key Stage 3 pupils were given squash balls and asked to plan and conduct an experiment to investigate the effect of different temperatures on the rebound height of the balls, showing which ones would pass the bounce test. With his Year 12 pupils, Mark spent a couple of lessons covering the theory of Thermal Physics before moving onto the same practical quality control experiment as the KS3 pupils but asking them to carry out a suitable error analysis, look at what factors caused the change in energy and to calculate the loss of potential energy and the maximum kinetic energy of the ball. With both groups Mark was pleased to have introduced a new way of approaching the subject which both encouraged team work and enabled him to test their understanding of the theory he had taught them in an interesting and practical way.

Laura – BSc Mathematics

As part of her UAS module, Laura chose the subject 'Verbal Communication of Mathematics' as her special project. Working with high ability year 9 GCSE pupils and year 7 pupils in a rural grammar school she decided, in conjunction with her host teacher, to try to help engage those pupils who did not participate regularly in class. Using a range of teaching techniques and materials, such as questionnaires, handouts, pair work and small group work, she analysed the circumstances in which pupils felt less or more comfortable, and adapted the teaching environment and her methods accordingly. She also analysed the ways in which pupils preferred to learn, either through visual, auditory or kinaesthetic means. On the basis of her observations, she presented a series of documents and materials including charts, diagrams and a report to her host teacher in order to share her findings on how to improve participation and verbal communication amongst the mathematics pupils, including comparisons of problems in Yr 7 and Yr 9.

Further examples are given on the course web page:

<http://www.mitchener.staff.shef.ac.uk/MAS302.html>

APPENDICES

APPENDIX 1 Useful Contact Addresses and Resources

You can find out more about the national scheme in which you are participating at the following website: **Undergraduate Ambassadors Scheme (UAS)** – www.uas.ac.uk

1. General Educational Resources

Department for Education has a number of useful links on its website:

www.education.gov.uk

You can explore examples of **Lesson Plans** at the website:

<http://www.educate.org.uk>

The following is a list of other useful **educational resource and information** sites:

Online Learning:	www.quia.com
Accessing Higher Education:	www.uni4me.com
Virtual Classroom:	www.cornwallis.kent.sch.uk
Technology for Disabilities:	www.techdis.ac.uk
Digital Brain:	www.digitalbrain.com
GNVQ Resources:	www.tynecoll.ac.uk/gnvqonline
ICT:	www.communitytechnology.org
Literacy:	www.nla.org.uk
Homework:	www.homeworkhigh.co.uk
National Grid for Learning:	www.ngfl.gov.uk
OFSTED:	www.ofsted.gov.uk

You may also find it useful to look at a book on educational theory, such as *Making Sense of Education: An Introduction to the Philosophy and Theory of Education and Teaching* by David Carr. If you cannot find it in the library, have a look at www.amazon.co.uk

2. Science Education and Communication

Many of these sites should also give you pointers and links towards a range of practical demonstrations, projects and 'resource packs' you may be able to use in the classroom:

Psci-Com (devoted to science communication): www.psci-com.org.uk.

Royal Institution: www.ri.ac.uk

British Association: www.britassoc.org.uk
www.the-ba.net

Institute of Physics: www.iop.org

Royal Society of Chemistry: www.rsc.org

Engineering Technology Board: www.etchb.co.uk

Royal Society: www.royalsoc.ac.uk

Exscitec: www.exscitec.com

Science concepts and misconceptions: www.conceptcartoons.com

Science Year/Planet Science: www.planet-science.com

Royal Academy of Engineering/Engineering Education Scheme:

www.engineering-education.org.uk

Association for Science Education and Science Challenge:

www.ase.org.uk and www.ase.org.uk/projectsscichallenge/

Learning and Teaching Support Network: (relevant subject centres): www.ltsn.ac.uk

DTI's Office of Science and Technology: publishes a list of organisations promoting science, engineering and technology at: www.dti.gov.uk/ost.

3. Maths

Institute of Mathematics and its Applications: www.ima.org.uk

London Mathematical Society: www.lms.ac.uk

The **Maths Challenge** competition: www.mathcomp.leeds.ac.uk

The **National Association of Maths Advisers** website has a number of links to useful maths resources and games: www.nama.org.uk/links

4. Careers and Work Experience

The **DfES Connexions** site carries information and a number of other site links about careers:

www.connexions.gov.uk

Work Experience: <http://www.ncwe.com/>

5. Teacher Training

The **Teacher Training Agency:** More about **Initial Teacher Training**, the **TTA** and the **QTS Standards** can be found at: www.education.gov.uk/get-into-teaching

6. Child Protection

You can find out more about **child protection** issues, **DBS** checks, and what you need to be aware of when **working with children** at the following site:

www.gov.uk/disclosure-barring-service-check/overview

7. Communication and Skills

Key Skills: <http://www.key-skills.org/>

<http://www.keyskillsnorth.net/>

Effective communication: www.psychological-hug.com

www.pertinent.com/pertinfo/business/exercises/sayitbetter.html

8. Other Useful Resources:

US Dept. of Education: <http://www.ed.gov/>

Sir Gareth Roberts' Report on Science Education: <http://www.hm-treasury.gov.uk>

The Dearing review of HE: <http://www.ncl.ac.uk/ncihe>

'The Future': <http://www.foresight.gov.uk/>

New Scientist: www.newscientist.com

Times Educational Supplement: <http://www.tes.co.uk/>

BBC: <http://www.bbc.co.uk/>

[Encyclopaedia Britannica:](http://www.britannica.com/)

<http://www.britannica.com/>

The Guardian Education site:

<http://www.educationunlimited.co.uk/>

[Lifelong Learning:](http://www.lifelonglearning.co.uk/)

<http://www.lifelonglearning.co.uk/>

[National Youth Agency:](http://www.nya.org.uk/)

<http://www.nya.org.uk/>

[Maps:](http://www.streetmap.co.uk)

www.streetmap.co.uk

APPENDIX 2 Provisional List of Key Course Dates_

Unless notified to the contrary, please observe the following key course dates. As much notice as possible will be given should any alteration prove necessary.

Date	Time	Venue	Activity
Wednesday 2nd October.	12 noon	Hicks, Lecture Theatre 4	Preliminary meeting; distribution of course material and interview topics
Monday 14 th October.	12 noon	Hicks, I15 (Paul Mitchener's pigeonhole)	Deadline to hand in application form.
Friday 18 th October, Monday 21 st October, Tuesday 22 nd October	Schedule to be decided	Hicks, G7	Interviews
Wednesday 27 th November (to be confirmed)	All day	School of Education	Training Day
tba	All day	tba	Oral Presentations
Monday 19 th May, 2014.	12 noon	Hicks G12	Deadline for hand in of written work