



Contents	Page
Section 1 General Information	
1.1 Introduction	3
1.2 Your role and status	
1.3 Your entitlements	4
1.4 Your responsibilities	
1.5 Professionalism, attendance and punctuality	5
1.6 Assignments, deadlines and referrals	6
1.7 Plagiarism	
1.8 Duplication	7
1.9 Complaints procedure	
1.10 Portfolio building	
1.11 Observed teaching sessions	8
1.12 Disclaimer	
1.13 Contact details	9
Section 2 Course Information	
Timetables for Autumn 2005 - Summer 2006	10 - 19
Section 3 Unit 6	
3.1 Guidance for Unit 6	20 - 21
3.2 Observation of colleagues	22
3.3 Criteria for Unit 6	23
3.4 Teaching and learning journal	24
3.5 Schon's reflective cycle	25



Contents	Page
Section 4 Evidence record sheets	
4.1 Unit 1 Social factors and issues affecting number development	26
4.2 Unit 2 Personal factors affecting learning	27
4.3 Unit 3 Numbers, geometry & spatial awareness	28
4.4 Unit 4 Probability and statistics	29
4.5 Unit 5 Working with algebra	30
Section 5 Book list	31 - 32
Section 6 Pro-forma documents	
6.1 Assignment re-submission sheet	33
6.2 Request for deadline extension	34
6.3 Observed teaching booking form	35
Section 7 Observation of teaching record	36-



1.0 General Information

1.1 Introduction

The Skills for Life Teacher Training team would like to welcome you to the Level 4 Certificate for Adult Numeracy Subject Specialists. We look forward to working with you over the next academic year.

This scheme handbook is designed to give you vital information and guidance about the course and provide you with a number of forms that you will need to photocopy and use throughout the year. The forms will also be available on the college virtual learning environment and you will be able to access them from any computer that has internet access.

This is a working document and may be added to/amended during the year. Your feedback on the value and practicability of this handbook will be very useful for future improvements.

1.2 Your role and status

When you join this course, you will be both a student and a teacher, with entitlements as a student and also responsibilities for the learning and welfare of others. This is increasingly common in Life Long Learning and most of us are currently both teachers and learners. It is a developing and changing role and the course is designed to accommodate this. As the course progresses you will be expected to assume autonomy and increasingly take the initiative and be creative as an independent, self-evaluating and confident teacher.

It is important that you feel comfortable with your professional colleagues (fellow students and tutors) and are able to raise issues or question them in a supportive and constructive manner. Your comments and observations will be of great value to tutors and fellow course members if they lead to positive debate and personal or professional development. Negative and unhelpful criticism will be discouraged.

We live in a society in which communication is driven by stereotypes that very often embody prejudice and result in inequality. As a course, tutors and course



members together, we will always strive to challenge prejudice and inequality as part of the teaching and learning process. We trust that you will share this commitment.

1.3 Your entitlements

- You will be entitled to a tutorial meeting with your tutor at least once a term.
- You will be offered opportunities for discussion about academic or professional problems that may affect your progress and professional development.
- You may see any reports written about you or your work which relate to the course and you will have the opportunity to discuss with the tutors concerned their accuracy and relevance.
- You will be referred to assistance as soon as any learning support needs you may have are identified.
- You will normally receive written feedback for assignments handed in on time within 2 weeks of submission. You will normally be given verbal and written feedback for observed teaching sessions immediately after the session, provided this is convenient and pre-arranged.

1.4 Your responsibilities

- Keep your personal tutor and the college campus office informed about any changes to your personal contact information.
- Make sure that any personal information is recorded, health or otherwise, that might affect your involvement with the course or your teaching responsibilities.
- Observe the policies, rules and conventions of the college in relation to your status as a student and as a teacher.



- Actively work to further your understanding of teaching and learning in your specialist area.
- Complete the full teaching requirements of the course and keep an accurate log of the extent and nature of your class contact time.
- Recognise your professional responsibility to colleagues on the course by making an active contribution to the teaching and learning activities and reporting information to them accurately and appropriately.
- Attend all your classes punctually. Provide reasons for failure to attend any classes.
- Observe appropriate professional confidentiality in matters related to students, colleagues and fellow course members.
- You will be expected to have basic IT skills for the course. If you feel you need some development with these skills please talk to your tutor who should be able to arrange this for you.
- Provide appropriate feedback to the course team to support the general development of the course.

1.5 Professionalism, attendance and punctuality.

The Certificate for Adult Numeracy Subject Specialists is a professional development course and therefore you will be expected to demonstrate a professional commitment to your teaching and learning activities and responsibilities.

You will be expected to attend all of the sessions, even if you are exempt from the assignments for that unit. There is an 80% minimum attendance requirement for completion. Failure to meet this will result in failure of that unit.

You are expected to be punctual and attend all teaching sessions and tutorials at the stated times.



1.6 Assignments, deadlines and referrals

All assignments have a deadline date. A deferral request form can be found in this handbook.

Each submitted assignment must include an Assignment Front Sheet (available from your tutor).

An assignment may be referred with guidance on any further work that is required. When the work is re-submitted it must include the original version with its feedback as well as the amended version of the assignment. Assignments may only be re-submitted twice. All re-submitted work must include an Assignment Re-submission Sheet.

1.7 Plagiarism

All work submitted by the student must be his/her own work. The student must ensure:

- Phrases, sentences and passages taken verbatim from a published work are placed in quotation marks, or identified, and the source is acknowledged
- Paraphrasing, ideas and arguments taken from a published work are clearly referenced.
- The inclusion of any other intellectual property, for example, illustrations, diagrams, proofs, designs, computer software, in written text or project work is clearly identified and acknowledged.
- The inclusion of material from electronic sources is carefully referenced and only web sites freely accessible to the marker must be used.
- The use of the work of others is not of such volume or importance to the submitted work as to compromise the student's ownership of the work.
- No significant collaboration has occurred where the student is required to submit the work as an individual piece.



1.8 Duplication

The student must ensure the work being submitted, or any substantial amount of it, has not been presented previously or simultaneously in this College or elsewhere, either by the student himself/herself or by any other student.

Penalties for minor offences

Penalties will be imposed according to the Lewisham College Plagiarism Policy.

Referencing

You will be expected to use the Harvard System for referencing. Please refer to the website address below:

<http://www.lmu.ac.uk/lss/lis/docs/Harvard/Harvard.htm>

1.9 Student Complaints Procedure

If you have any complaints about the College, you must follow the stages within the Complaints Procedure as set out in the Students Complaints Procedure booklet. Copies are available from the Campus Office.

1.10 Portfolio Building

You will be required to submit a portfolio of evidence by the end of the course. This should include all your completed assignments prefaced by a completed Evidence Record Sheet (one per unit). Copies of blank E.R.S can be found on pages 26 - 35.



1.11 Observed teaching sessions

You are required to log 30 teaching hours whilst on the course. Only 9 of these hours can be one to one teaching. The remaining 21 hours must be in a class of at least 6 students.

You must show evidence of teaching numeracy to students at different curriculum levels.

You are required to complete 3 observed teaching sessions during the course, these will each be one hour long.

To book a teaching observation you must complete the Observed Teaching Booking Form and submit it to the tutor on your course.

It is your responsibility to ensure you are observed 3 times during your course of study. However if this is not possible please discuss this with your tutor.

The criteria for assessing the observed teaching sessions are outlined in this companion under *Criteria for Unit 6*.

1.12 Disclaimer

We endeavour to ensure that the course runs entirely as stated, however changes may be necessary due to unforeseen circumstances e.g. availability of guest speakers.



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C& G 9486 Level 4 Certificate for Adult Numeracy Specialists:

1.13 Contact Details

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Section 2: 2005/6 Timetable

AUTUMN TERM 2005

Week	W/C	Unit	Topic	Activity
1	28/8/05		Induction	<ul style="list-style-type: none"> • Enrolment • Learning Styles inventories • Maths self-assessment • Introduction to group work - Confetti Crush • Virtual Learning Environment activity
2	05/10/04	1 ₁	Maths workshop <ul style="list-style-type: none"> • History of skills for life • The international perspective 	Numbers & number systems SFL presentation Lewisham overview + questionnaire Sequencing exercise Webquest HAND OUT UNIT 1 ASSIGNMENT
3	12/10/04	1 ₂	Maths workshop <ul style="list-style-type: none"> • Socio-economic status and effect on a learner • Maths history 	Tesselation & symmetry Reading + statistics Case study



4	19/10/04	1 ₃	<p>Maths workshop</p> <ul style="list-style-type: none"> • Ethnicity / culture and effect on a learner • Maths history 	<p>Pre-calculus geometry + trapezium rule</p> <p>Reading + statistics</p> <p>Case study</p>
	26/10/05		HALF TERM	
5	2/11/04	1 ₄	<p>Maths workshop</p> <ul style="list-style-type: none"> • Gender and effect on a learner • Issues of last 3 sessions. • Learning theories 	<p>Pascal's triangle & polynomials</p> <p>Reading & statistics</p> <p>Discussion</p> <p>Preparation for week 7</p>
6	9/11/04	1 ₅	<p>Maths workshop</p> <ul style="list-style-type: none"> • Different models of delivery eg • Family numeracy • Financial literacy • Numbers in the workplace • Embedded basic skills • Local provision revisited. 	<p>Absolute & relative error</p> <p>Questionnaire results from week 2 for own area</p>



7	16/11/04	1 ₆	Learning theories	Individual presentations Maths webquest on finding useful statistics (directed holiday activity)
8	23/11/05	2 ₁	TUTORIALS <ul style="list-style-type: none"> • Personal Maths Histories • Maths Anxiety 	HAND OUT UNIT 2 ASSIGNMENT Presentation on maths histories Discussion of maths anxiety triggers Strategies for delivery
9	30/11/05	2 ₂	TUTORIALS Language and Maths	Presentation on Gramschi & Freire Review of language in exam papers
10	7/12/05	2 ₃	Maths Workshop Learning /processing difficulties and disorders	Simultaneous equations Presentation on dyslexia Presentation on dyscalculia Strategies
11	14/12/05	2 ₄	Maths Workshop <ul style="list-style-type: none"> • Assessment tools • Error analysis and diagnostic assessment 	Inequalities Different methods used Case studies provided Trainees to select a case study from their own experience HAND IN UNIT 1 ASSIGNMENT
	21/12/05		XMAS BREAK	
	28/12/05			



12	4/01/06	2 ₅	Maths Workshop ILPs Identify and plan for the needs of learners	Quadratics - formula & factorising Case study Wayne Identify appropriate resources and strategies for Wayne
13	11/01/06	2 ₆	Maths Workshop Differentiated learning	Statistical diagrams Differentiation to overcome personal barriers to learning Physical barriers
14	18/01/06	2 ₇	Maths Workshop Differentiated learning	Basic probability Differentiation to overcome personal barriers to learning Physical barriers
15	25/01/06	2 ₈	Maths Workshop Differentiation in the numeracy classroom	Standard deviation & normal distribution Develop or adapt a teaching/learning resource to meet the needs of a student with an identified difficulty
16	01/02/05	TUTORIAL	TUTORIALS Presentations	Show and tell of learning resources - individual tutorials if required while this is going on.
17	8/02/06	3 ₁	Teaching practice workshop Number systems & number bases	Keeping a blog Egyptian maths, binary & octal. HAND OUT UNIT 3 ASSIGNMENT
	15/02/06		HALF TERM	
18	22/02/06	3 ₂	Teaching practice workshop Euclidian & non-Euclidian geometry	Peer observations Rewrite propositions. Measure non-Euclidean shapes & discuss outcomes. Look at polygons in real life



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C& G 9486 Level 4 Certificate for Adult Numeracy Specialists:

19	1/03/06	3 ₃	Teaching practice workshop Graphs & linear programming	Group profiles Use technology for graphing functions. Compare syntax between problems to be calculated by hand and using different technologies.
20	8/03/06	3 ₄	Teaching practice workshop Quadratics, gradients and areas	Critical incidents Roller coaster mathematics. HAND IN UNIT 2 ASSIGNMENT
21	15/03/06	3 ₅	Teaching practice workshop Non-linearity, exponentials & logarithms	Reflective practice Reading: Chaos theory Linear & non-linear expansions. Linear & non-linear relationships.
22	22/03/06	3 ₆	Teaching practice workshop Proofs	Reflective writing Conventions for mathematical proofs. The difference between proof and demonstration.



23	29/03/05	4 ₁	<p>TUTORIALS</p> <p>Interpreting and manipulating raw data</p> <p>Review estimates of the mean, characteristics of data and appropriate graphical representation</p>	<p>HAND OUT UNIT 4 ASSIGNMENT</p> <p>Human Rights Investigation interpreting raw data</p>
	5/04/06		EASTER BREAK	
	12/04/06			
24	19/04/06	4 ₂	<p>Teaching practice workshop</p> <p>Normal distribution</p> <p>Measures of dispersion and introduce confidence intervals</p> <p>Pearson's correlation co-efficient</p>	<p>Using equation editor in worksheets</p> <p>Calculating and interpreting the importance of the distribution of data and interpret Pearson's correlation co-efficient</p>



25	26/04/06	4 ₃	<p>Teaching practice workshop History of Probability</p> <p>Review the and/or rules of probability</p> <p>Calculate and interpret conditional probability</p>	<p>Lesson evaluation</p> <p>Matching exercise</p> <p>Devising probability problem</p> <p>Reviewing the use of conditional probability and exploring the algorithms</p>
26	3/05/06	4 ₄	<p>TUTORIALS Compare observations using chi squared test and Pearson's rank test</p>	<p>Exploring the use of chi squared testing and Pearson's rank test</p> <p>HAND IN UNIT 3 ASSIGNMENT</p>
27	10/05/06	4 ₅	<p>TUTORIALS Review confidence intervals and explore the use of significance testing</p>	<p>Exploring how to complete a significance test and reviewing the results</p>
28	17/05/06	4 ₆	<p>Investigation</p>	<p>Either: Writing a statistical report using information from an educational setting. Or: Completing a significance test.</p>
26	24/05/06	5 ₁	<p>Portfolio workshop Mathematically modelling real life situations Linear and non-linear models</p>	<p>HAND OUT UNIT 5 ASSIGNMENT Solving Egyptian problems. Identifying linear and non-linear graphs.</p>



	31/05/06		HALF TERM	
27	7/06/06	5 ₂	Portfolio workshop Mathematical relationships between sectors of a circle and cones Methods of solving quadratic equations. Experimental mathematical modelling.	Creating cones of various sizes Calculating volumes Solving quadratic equations comparing a variety of methods
28	13/06/05	5 ₃	Portfolio workshop The laws of logarithms Exponential functions	Modelling experiments Laws of logarithms
29	20/06/05	5 ₄	Portfolio workshop Using logarithms to change number bases. Drawing exponential curve. Natural logarithms	Written exercises Webquest Modelling with exponentials including Natural logarithms HAND IN UNIT 4 ASSIGNMENT
30	27/06/05	5 ₅	Portfolio workshop Complex numbers Application of algebra to real-life problems	Complex numbers triangles activity Task using calculus



AUTUMN TERM 2005

31	07/07/06	5 ₆	Portfolio workshop Cartesian and polar co-ordinates Expressing complex numbers in Cartesian form Four rules of complex numbers	Converting between polar and Cartesian co-ordinates Conjugating complex numbers Real and imaginary axes HAND IN TEACHING PRACTICE PORTFOLIO
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Unit 5 assignment hand in date is July 30th 2006



Section 3: Unit 6: Teaching Practice

3.1 Guidance for Unit 6

Candidates are required to produce a teaching folder.

Teaching observation records

Candidates must show evidence of 30 hours of numeracy teaching practice no more than 30% 1:1) of which a total of 3 hours will be observed and assessed by a member of the course team in **at least two different levels in at least 3 separate observations**. A greater number of shorter observations may be appropriate where teaching practice is used as a development tool and teaching practice can be in the candidate's own class or in individually arranged placements

A group is considered to be a minimum of 6 adults, who may be following individual learning programmes, but for whom the candidate plans and manages the session as a group session.

Observed teaching **MUST** include: evidence of whole group and small group activities.

Course file

- Course outline and Scheme of Work, with objectives/outcomes mapped to the core curriculum.
- Detailed session plans for all sessions, including evidence you have planned outcomes for both the group and for the individuals.
- Copies and/or descriptions of any resources used during the teaching sessions.
- Records of progress for each session.
- A teaching and learning journal. The diary should include observations of experienced practitioners and peers and should cover:
 - a) what candidates have learned
 - b) critical incidents and their personal responses to them
 - c) their experiences in the classroom



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Professional Development Centre

C& G 9486 Level 4 Certificate for Adult Numeracy Specialists:

- d) how the learning on the programme has informed changes in their attitudes, behaviour and practice
- e) evidence of teaching a range of core curriculum levels.

Group profile

Write an overview of the group including:

Curriculum level, numbers, age, span, educational experience, employment, ethnicity, languages spoken, specific learning difficulties/disabilities and other special requirements.

Initial assessment

Choose two learners and provide evidence of

- Screening /initial assessment processes carried out with the learner in order to place them on a programme.
- Discussion with each learner on his / her own perception of ability, interests and personal goals
- Diagnostic assessment
- Individual Learning Plans with SMART targets and review on progress
- Collaboration between you and the learners in planning their programme of learning



3.2 Observations of colleagues

- Candidates must observe at least one experienced colleague and one peer.

The following questions may be used as a guide when you are observing a colleague.

What are the expected learning outcomes of session?
What is being taught?
What activities are being used?
What context has the teacher drawn upon?
How are the students' experiences and interests used?
How is the teacher checking whether learning is taking place?



3.3 Criteria for Unit 6

Candidates must demonstrate that they are able to:

- 1 Prepare, plan and deliver 30 hours of teaching practice to adult learners of numeracy. Candidates are expected to:
 - a) Be able to plan, prepare, deliver and evaluate teaching and learning programmes for **at least two** different levels, for example entry level one and level two, and
 - b) Demonstrate effective use of an appropriate range of classroom teaching skills.

- 2 Implement the adult numeracy core curriculum effectively, drawing on appropriate techniques and approaches for teaching adult numeracy outlined in the 'Guidance on using the subject specifications for teachers of adult numeracy at level 4 in conjunction with the standards for teaching and supporting learning' (FENTO).

- 3 Apply appropriate methodologies, approaches and techniques derived from the main theories of number learning and development. Candidates will be able to demonstrate through their teaching practice their ability to:
 - a) Apply their knowledge of the theory studied to enhance their teaching effectiveness and their ability to assess learners' needs and development.
 - b) Recognise the '**Social factors and issues affecting number development**' and use this understanding to enhance their effectiveness as a teacher, helping to secure the success of their learning programmes and goals.
 - c) Work effectively to meet learner needs, showing they can apply the understanding and skills developed while learning about '**Personal factors affecting learning**', and
 - d) Apply the relevant skills shown in the '**Personal numeracy skills**' section of this document in a classroom context, using them to enhance the effectiveness of their teaching.

- 4 Respond appropriately to relevant aspects of professional development.



3.4 Teaching and Learning Journal

Write and evaluation/reflection on your teaching practice using the 3 headings below.

The points below the headings are suggestions to help you focus. You should try to address all the points at some time during your 30 hour teaching placement but you are not expected to address all points in each evaluation.

What you have learned and your experiences in the classroom (as tutor).

Critically evaluate the session including:

- What worked well in the session?
- What didn't work well?
- What would you change next time? Explain why and give suggestions for future sessions.

Critical incidents and your personal responses to them.

This may include:

- Poor attendance
- Late arrivals
- Disruptive/argumentative students
- Unplanned interruptions
- Student underachievement

Critical incidents include any incident that has an impact on your practice or makes you stop and review your teaching.

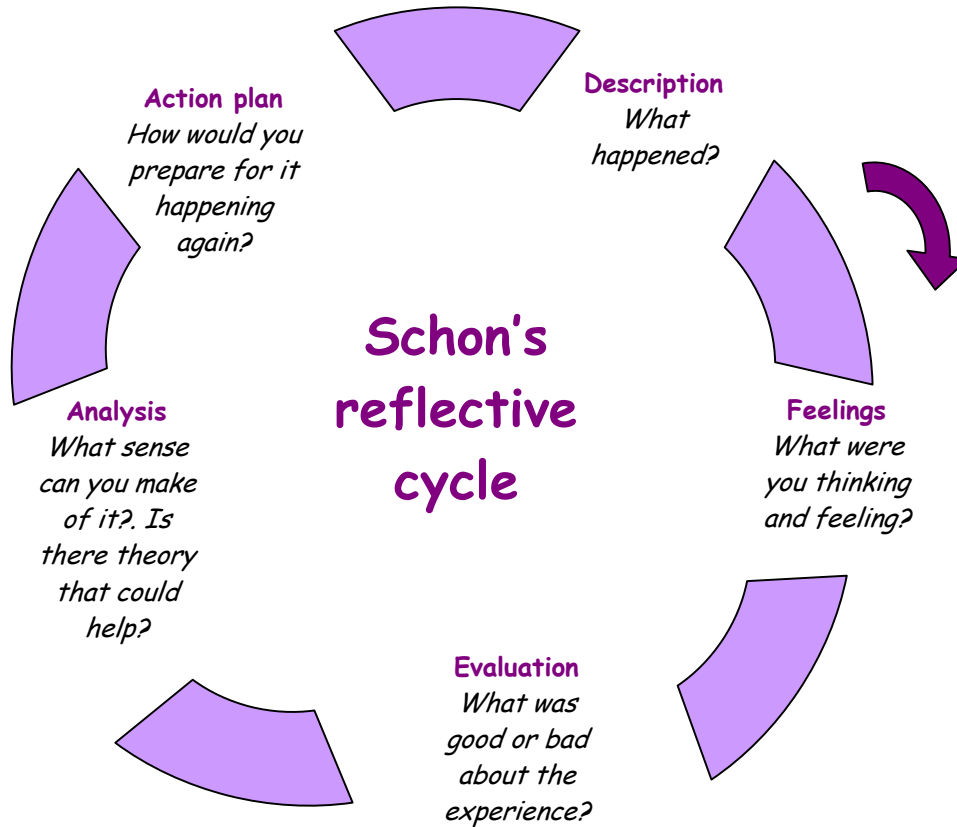
How the learning on the programme (Level 4 Subject Specialism) has informed changes in your attitudes, behaviour and practice.

This may include reference to:

- Learning styles/choice of materials
- Learning theories
- Teaching techniques
- Hints and tips from other practitioners
- How your personal skills development has impacted on your teaching
- Equal opportunities issues
- Skills for Life agenda



3.5 Schon's reflective cycle



- Reflection-in action - Analysis of teaching while in the process
- Reflection-on-action - Critical analysis of teaching before / after the event
- Dimensions of reflection
- Rapid reflection - Immediate and automatic reflection-in-action
- Repair -Thoughtful reflection-in-action
- Review - Informal reflection-on-action soon after event
- Research - Systematic reflection-on-action over a period of time
- Retheorising -Long term reflection-on-action informed by academic theories

Reference

Schön, D.A. (1987). Teaching artistry through reflection-in-action. In Educating the Reflective Practitioner (pp. 22-40). San Francisco, CA: Jossey-Bass Publishers



4.0 Evidence Record Sheet

4.1 Unit 1: Social factors and issues affecting number development

Assessment objectives	Date achieved	Assessor's signature
Describe how the following factors influence learning and development of number skills: a) Socio-economic status b) Ethnicity/culture c) Gender		
Analyse the consequences of limited/restricted number attainment for the individual, economy, community and society		
Select approaches to numeracy provision, curriculum and practice which successfully address the social factors influencing number development		
Identify and apply appropriate theories of learning to the post-16 numeracy context		

Candidate	Date	Signature
Assessor's name	Date	Signature
Internal verifier's name	Date	Signature
External verifier's name	Date	Signature



Evidence Record Sheet

4.2 Unit 2: Personal factors affecting learning

Assessment objectives	Date achieved	Assessor's signature
Describe the key features of the following numeracy learning and processing difficulties and disorders: a) Processing problems b) Attention deficits c) Visual-spatial deficits d) Auditory processing difficulties e) Memory and sequence difficulties f) Motor disabilities g) Unusually high anxiety		
Identify signs of numeracy learning or processing disorders in the work of numeracy learners		
Identify signs of numeracy learning or processing disorders in the work of numeracy learners		
Select and use teaching and learning strategies to help learners with the above disorders and disabilities		
Identify and analyse the influence of the following on individuals' number learning and development: a) Age b) Personal circumstance Previous learning experience		
Adopt approaches to teaching which help the learner to overcome personal barriers to numeracy learning and achieve number goals		
Candidate	Date	Signature
Assessor's name	Date	Signature
Internal verifier's name	Date	Signature
External verifier's name	Date	Signature



Evidence Record Sheet

4.3 Unit 3: Numbers, geometry and spatial awareness

Assessment criteria	Date	Assessor's signature
Understand the purposes of different number systems and use them in calculations		
Apply laws of arithmetic operations and rules of precedence in simplifying arithmetic expressions		
Represent numbers by letters making firm connections between numbers and algebraic symbolism		
Solve problems relating to the real world using concepts and properties of geometry		
Explain the use of non-linear scales such as logarithmic and exponential scales		
Demonstrate how geometric ideas link to the development of calculus		
Apply geometrical properties and relationships to real life and mathematical problems to make deductions about spatial reasoning. Involving: a) Working with geometric inequalities b) Understanding and applying the appropriate theorems c) Demonstrating an understanding of co-ordinate geometry of the straight line		
Candidate	Date	Signature
Assessor's name	Date	Signature
Internal verifier's name	Date	Signature
External verifier's name	Date	Signature



Evidence Record Sheet

4.4 Unit 4: Probability and statistics

Assessment criteria	Date achieved	Assessor's signature
Identify and apply concepts and calculations associated with discrete probability distributions and the probability of events		
Estimate means, variances and proportions using standard calculations		
Calculate measures of dispersion and use these to interpret data sets		
Use quantitative skills including data analysis, interpretation and extrapolation		
Use appropriate graphical tools to represent data		
Select and use significance tests such as Chi-squared, t-test, Z-test etc		
Accurately interpret graphical representation of data		

Candidate	Date	Signature
Assessor's name	Date	Signature
Internal verifier's name	Date	Signature
External verifier's name	Date	Signature



Evidence Record Sheet

4.5 Unit 5: Working with algebra

Assessment criteria	Date achieved	Assessor's signature
Describe how relationships between number operations underpin the techniques used in manipulating algebraic expressions		
Represent practical situations symbolically and use formulae to describe real world and mathematical problems		
Apply algebraic methods to solve a variety of real world and mathematical problems		
Represent arithmetic patterns and real-world situations using tables, graphs and equations, exploring the interrelationships of these presentations.		

Candidate	Date	Signature
Assessor's name	Date	Signature
Internal verifier's name	Date	Signature
External verifier's name	Date	Signature



Section 5: Book List

- | | |
|--|--|
| <i>Perspectives on Adults Learning Mathematics: Research and Practice</i> | <i>D.Coben, G Fitzsimmons and J.O'Donoghue (eds) Kluwer Academic Publications 2000</i> |
| <i>Pedagogy of the Oppressed</i> | <i>P.Freire Seabury 1970</i> |
| <i>Cognition in Practice: Mind, Mathematics and Culture in Everyday Life</i> | <i>J.Lave CUP 1988</i> |
| <i>Education for Mathematics in the Workplace</i> | <i>A.Bessott and A.Ridgeway (eds) Kluwer 2000</i> |
| <i>Adults Count Too: Mathematics for Empowerment</i> | <i>R.Benn NIACE 1997</i> |
| <i>It Doesn't Get Any Better: The Impact Of Poor Basic Skills on the Lives of 37 Year Olds</i> | <i>J.Bynner and S. Parsons BSA 1997</i> |
| <i>A Fresh Start- Improving Literacy and Numeracy (The Moser Report)</i> | <i>DfES 1999</i> |
| <i>Literacy Skills for the Knowledge Society</i> | <i>OECD 1997</i> |
| <i>Adult Numeracy Core Curriculum</i> | <i>BSA 2001</i> |
| <i>Overcoming Maths Anxiety</i> | <i>S.Tobias Norton 1978</i> |
| <i>Conquering Math phobia: A Painless Primer</i> | <i>C.C.Clawson John Wiley and Sons Inc, 1991</i> |
| <i>Do You Panic About Maths?</i> | <i>Laurie Buxton Heineman, 1984</i> |
| <i>The Psychology of Learning Mathematics</i> | <i>R.Skemp Harmondsworth:Penguin, 1971</i> |



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|--|---|
| <i>History of Mathematics: a Reader</i> | <i>J.Fauvel and J.Grey OUP 1987</i> |
| <i>A History of Mathematics</i> | <i>C.Boyer (revised by Uta C. Merzbach) 2nd Edition John Wiley, 1991</i> |
| <i>The Universal History of Number</i> | <i>Georges Ifrah The Harvill Press Ltd, 1994</i> |
| <i>Dictionary of Mathematics</i> | <i>E.J. Borowski and J.M Borwein Harper-Collins 1989</i> |
| <i>Mathematics: The Loss of Certainty</i> | <i>Morris Kline OUP 1980</i> |
| <i>The Thirteen Books of Euclid's Elements</i> | <i>Thomas Heath (trans) 2nd Edition Dover 1956</i> |
| <i>Greek Mathematical Thought and the Origin of Algebra</i> | <i>Jacob Klein Dover 1968</i> |
| <i>Complete Advanced Level mathematics - Pure Mathematics</i> | <i>Andy Martin, Kevin Brown, Paul Rigby, Simon Riley Nelson Thornes 2000</i> |
| <i>Mathematics and Plausible Reasoning</i> | <i>B.Polya Princeton University Press 1992</i> |
| <i>Statistics: Theory and Methods</i> | <i>Berry and Lindgren ITP 1996</i> |
| <i>A Concise Course in A-Level Statistics with Worked Examples</i> | <i>J.Crawshaw and J.Chambers Nelson Thornes 2001</i> |

All these books are available in the PDC Learning Resource Centre.



Section 6.0: Pro-forma documents

6.1 Assignment re-submission sheet

Name:
Assignment:

Feedback:
Have the previous action points been addressed?

Further action points:

PASS

REFER

Signed

Date.....



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6.2 Request for assignment deadline extension.

Name

Group (Day of week/venue)

I wish to request an extension for assignment No.....

Reason for request:

.....
.....
.....
.....
.....
.....
.....
.....
.....

Signed

Date.....

Request Agreed

Denied

Signed (Tutor).....

Date.....



6.3 Observed teaching booking form.

Name.....

Group (Day of week/venue)

Date and time of proposed observed session:

Day Date.....

From am/pm To am/pm

Address and contact details:

Organisation.....

Address.....

.....

Room No.

Your mobile No. Your home No.....

Nearest tube

Parking facilities

Details of the group that you will be teaching:

Course.....

Topic.....

Group size.

Please note:

- *Observed sessions need to be for one hour with 10minutes for feedback.*
- *You should arrange with the learners to take a break or arrange some opportunity for the observer to give feedback after one hour.*
- *At the beginning of the visit you must present to the observer a copy of your lesson plan with any handouts or resources that you will give to the learners, along with the course file showing student progression.*
- *You should write your evaluation of the session and submit it to your tutor at your next meeting.*
- *You need to provide your observer with your unit 6 assessment criteria including any previous assessments and feedback.*



Skills for Life
Professional Development Centre C& G 9486 Level 4 Certificate for Adult Numeracy Specialists:

Level 4 Certificate for Adult Numeracy Subject Specialists (9486)

Observation of Teaching

Candidate Name:	Course Teacher:
College/Centre:	
Date and Time of Visit:	No. of Students:
Curriculum Level:	Topic:

Assessment Criteria	Observation			Criteria Met	Date
	1	2	3		
Initial Assessment and Planning					
1. Was there a lesson plan with clear lesson outcomes prepared with reference to : <ul style="list-style-type: none">• Learners' needs and aspirations, learning styles and factors influencing number learning.• The national core curriculum for adult numeracy. Did the outcomes address a range of language skills: processing, memory, symbolism, relationships and operations?					
2. Did the plan build on previous learning?					



3. Did the plan include a variety of activities and a balance between individual work and set tasks?					
4. Were the content level and pacing of the lesson and homework tasks appropriate for everyone in the group?					
5. Had the teacher planned differentiated learning outcomes for individual students?					
6. Was the room laid out appropriately and prepared beforehand?					
Selection and Use of Learning Resources					
1. Was a range of numeracy resources and tasks used to suit different learning styles?					
2. Were the materials accurate, appropriate and well presented?					
3. Were the language, style and format appropriate for everyone in the group?					
4. Did the materials support individual learning needs, including those with specific learning difficulties that influence number development?					
5. Did the resources reflect diversity, and adult learners' interests and aspirations?					
6. Did the teacher promote and encourage the use of self-access learning aids?					
Teaching methods and approaches for numeracy learning					
1. Did the teacher choose approaches that demonstrated an underpinning knowledge of how number and numeracy skills are developed?					
2. Did the teacher elicit learners relevant experience and knowledge as a starting point for teaching and learning?					



3. Were the activities at the right pace for learners?					
4. Was the teacher able to work effectively with having different levels of number ability?					
5. Did the teacher communicate effectively with all learners?					
6. Did the teacher adapt approaches for learners' needs and individual learning styles, including those with specific learning difficulties and disabilities?					
7. Did the teacher encourage learners to explore their own preferred learning styles and to explore techniques that worked for them?					
8. Did the teacher adopt teaching strategies designed to help the learner overcome personal barriers to numeracy learning and achievement of number goals?					
9. Were learners encouraged to use a range of self checking, memory and revision strategies					
10 Did the teacher select approaches to numeracy teaching which address social, cultural and other factors influencing number development?					
Management of Small Group and Individual Work					
1. Did the teacher make strategic use of small group and individual "live" activities designed to ensure all members used and developed their number skills?					
2. Did the teacher take steps to ensure a lively and supportive work atmosphere?					
3. Was briefing clear and learning points and outcomes summarised with learners; were appropriate follow up tasks set?					
4. Were consistent errors and misunderstandings addressed?					



Assessment and record keeping					
1. Did the teacher check that all students learned what was agreed?					
2. Was the feedback accurate and constructive?					
3. Were errors highlighted selectively, accurately and at an appropriate pace for the learner?					
4. Did the teacher help students self assess and reflect on their own learning?					
5. Is the teacher able to design assessment according to the requirements of awarding bodies?					
6. Does the teacher monitor individual and group progress and keep effective records?					
Evaluation					
1. Did the teacher encourage learners to feedback on their learning and the learning process?					
2. Does the teacher evaluate the learning programme against the achievement of learning outcomes and learner feedback?					
Professional values and practice					
1. Did the teacher demonstrate effective time management skills?					
2. Did the teacher maintain supportive but professional boundaries?					
3. Did the teachers demonstrate an awareness of equal opportunities and inclusive education practices?					



This page should be completed at the end of each observation (please copy as required)

OVERALL GRADE: PASS / REFER

Strengths:

Priorities for Future Development:



This page should be completed at the end of each observation (please copy as required)

Reflection by candidate:

Comments:

Candidate.....**date**.....

Course
teacher.....**date**.....