Scheme of Work **Course Code:** | **Course Title:** **Functional Skills Maths Level1**

Academic Year: **2009-10** **Curriculum Area:** **Construction** **Prepared By:** **Elizabeth Adeyemi**

Week/ Session	Content	Learning Objectives: students will be able to	Assessment of Learning	Teaching and Learning Activities	Resources	Key Skills Basic Skills Every Child Matters
1	Induction Initial assessment	1.Expalin the different achievement quals (Key/Basic and Functional Skills) 2. answer questions on the Profiler assessment	Q&A Answers on the Profiler assessment	• Introduce the Key/Basic/Functional Skills– discuss assessment and portfolio requirements etc. • Paper or computer-based diagnostic assessments	Handouts Whiteboard Assessments *Computers*	
2	Initial assessment 1:1 feedback	1. Complete the Profiler assessment 2. Complete autumn term target on progress sheets	Answers on Profiler assessment Q&A	• Give 1:1 feedback and complete an ILP with learners	Assessments *Computers*	
3	Language of Maths Place value	1. Read, write order and compare numbers 2. Discuss negative numbers in practical contexts 3. Read temperatures on a thermometer	Observation of ordering activity Q&A Observation of reading and recording temperature	• Activity - Match figures to words (*smartboard)* • Worksheet – write the value of a digit in a number • Cards activity - Order a set of +ve and –ve numbers *(smartboard)* • Paired activity - Describe a set of numbers (more than, less than, equal to) *(smartboard)* • Paired activity – measure and record body temperatures	Matching cards Thermometers Worksheets *Computer* *Smartboard*	N1/L1.1 N1/L1.2 MSS1/L1.4
4	4 rules of whole numbers	1. Add and subtract using efficient written and mental methods	Checking/marking of the problem solving worksheet & observing the mental maths game	• Discussion – different methods for addition and subtraction *(smartboard)* • Worksheets – 4 rules • Group activity – follow on game using cards • Group activity - dominoes games • Inverse checking	Activity cards Worksheets Follow on game cards Dominoes *Smartboard* *Computer*	N1/L1.3

Week/ Session	Content	Learning Objectives: students will be able to	Assessment of Learning	Teaching and Learning Activities	Resources	Key Skills Basic Skills Every Child Matters
5	4 rules of whole numbers	1.Multiply and divide using efficient written and mental methods	Successful completion of problem solving worksheet & mental maths game	• Discussion – different methods for multiplication and division *(smartboard)* • Worksheets – 4 rules • Group activity – follow on game using cards • Group activity - dominoes games • Inverse checking	Activity cards Worksheets Follow on game cards Dominoes *Smartboard* *Computer*	N1/L1.3
6	Rounding and estimating	1. Round numbers to nearest 10, 100, 1000 to make approximate calculations 2. Estimate to check that answers are reasonable	Checking/marking of worksheet & Observing the paired activity – Peer assessment Directed questioning	• Discussion – examples of rounding in everyday life. • Board work – how to round to nearest 10, 100 & 1000 *(smartboard)* • Worksheets - Round values to the nearest £1, £10 & £100 (e.g. budgeting) • Paired activity - Estimate then use calculator to find total of items bought	Whiteboard Worksheets Calculators *Smartboard* *Computer*	N1/L1.8 N1/L1.9
7	Recap / Mini project – applying 4 rules of numbers (Formative assessment)	1. Complete project. 2. Answer four rules questions using mental maths	Formative assessment of student's work Directed questioning	• Learners to complete mini project and answer verbal questions on the budget for a small business • Set homework	Mini project Mental maths questions	N1/L1.1-L1.3 N1/L1.8-L1.9 MSS1/L1.4 **ECM5**
HALF TERM						
8	Intro Fractions Equivalent fractions	1. Read, write, order and compare common fractions 2. Correctly match equivalent fractions to each other	Checking/marking of worksheet Observing the activity Directed questioning	• Discussion – examples of fractions in everyday life (use leaflets). Understand that fractions add up to one whole • Activity – matching shaded shapes to fractions *(smartboard)* • Card activity – matching equivalent fractions	Leaflets Whiteboard Matching cards Worksheets Drag and drop exercise.	N2/L1.1
9	Find fraction parts of a whole number	1.Calculate fraction parts of whole number quantities and measurement	Observing the activity Checking/marking of worksheet Directed questioning	• Starter activity – equivalent fractions • Board work – Finding fraction parts • Worksheets – Calculating fraction parts • Fraction of shopping cost	Whiteboard *Smartboard* *Computer* *Shopping list*	N2/L1.2

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10	Decimals	1. Read, write order and compare decimals up to three decimal places 2. Add and subtract decimals up to two decimal places 3. Approx decimals by rounding	Observing the activity Checking/marking of worksheet Directed questioning	• Discussion – introduce decimal place value *(smartboard)* • Activity – order decimal numbers (*skillswise*) • Worksheet – add and subtract money, rounding money (*smartboard)*	Whiteboard Ordering cards *Smartboard computers*	N2/L1.4 N2/L1.5 N2/L1.7 **ECM 5**
11	X / ÷ by 10 & 100 Equivalencies between decimals and fractions	1. Multiply and divide whole numbers by 10, 100 2. Match equivalent fractions and decimals	Observing the activity Self assessment Directed questioning	• Discussion – how to x/÷ by 10 and 100 • Activity – match calculations to answers *Smartboard / skillswise)* • Activity – match equivalent decimals and fractions *(smartboard)* – 1/10, 1/5,1/4, ½, ¾	Whiteboard Matching cards *Smartboard computers*	N1/L1.4 N2.L1.6
12	Percentages	1. Read, write, order and compare simple percentages 2. Calculate simple percentage parts of whole numbers	Observing the activity Directed questioning Checking/marking of worksheet	• Discussion – examples of percentages in everyday life (use leaflets) • Card activity – order percentages • Mental and written strategies for calculating percentages • Worksheet – finding simple percentages	Leaflets Cards Whiteboard *Smartboard*	N2/L1.8 N2/L1.9 N2/L1.10
13	Fraction, decimal, percentage equivalencies	1.Match common fractions, decimals and percentages	Observing the activities Peer assessment Directed questioning	• Board work – calculating equivalencies • Small group quiz – calculating fractions, decimals and percentages. • Card activity – match %, decimals & fractions *(smartboard)*	Whiteboard Quiz questions Worksheets Matching cards *Smartboard*	N2/L1.3
14	Recap - mini project involving Fraction, decimal and percentages (Formative assessment)	1. Complete problem solving paper / mini project covering work completed during second half term	Formative assessment of student's work Directed questioning	• Learners to complete mini project - finding the most competitive prices to re-decorate a spare room into an office • Set homework according to test results	mini project	N2/L1.1 N2/L1.2 N2/L1.4 - 10 **ECM5**
XMAS BREAK						

Week/ Session	Content	Learning Objectives: students will be able to	Assessment of Learning	Teaching and Learning Activities	Resources	Key Skills Basic Skills Every Child Matters
15	Recap of Fractions, decimals and percentages Feedback of first term's topics	1. Apply fraction, decimal and percentage in problem solving situations 2. Review autumn term progress sheet and complete targets for spring term	Checking/marking of worksheet Directed questioning	• Worksheets – Problem solving with fractions, decimals and percentages. • Feedback with tutor – evaluate students progress with regard to their learning and their personal development	Worksheets Calculator	N2/L1.1-11 **ECM3**
16	Ratio and direct proportion	1.Dilute liquids to a given ratio 2. Change quantities in a given recipe 3. Draw an accurate scale plan of a room using a given scale	Directed questioning Checking/marking of worksheet Observing the activity	• Discussion – ratio and proportion in everyday life. Discuss scale plans and how they are used. • Board work – How to calculate ratio and proportion *(smartboard)* • Worksheets – calculating ratio and proportion • Activity – diluting liquids • Activity - Produce simple plans and scale drawings using given scales	Whiteboard Worksheets Recipes Liquids and containers *Smartboard*	N1/L1.7
17	Length	1.Write down at least 2 units of measure for length 2. estimate and accurately measure lengths of objects 3. Convert between metric measurements for length	Observation of activity Q&A. Observation of measuring activity Checking/marking of worksheet	• Discussion – metric / imperial units • Activity – estimate, measure and record length of items • Board work – How to convert between different units (review x & ÷ by 10, 100 and 1000). • Worksheets - Converting between different units • Activity – match metric amounts with different units *(smartboard)*	Whiteboard Worksheets Matching cards Measuring instruments *Smartboard*	MSS1/L1.4 MSS1/L1.7
18	Weights and capacities	1. Write down at least 2 units of measure for weights & capacity 2. estimate and accurately measure weight and capacity of objects 3. Convert between metric measurements for weights and capacity	Observation of activity Observation of measuring activity Checking/marking of worksheet Directed questioning	• Discussion – recap metric and imperial units • Activity – estimate, measure and record weights and capacities of items • Board work – How to convert between different units (review x & ÷ by 10, 100 and 1000). • Worksheets - Converting between different units • Activity –match metric amounts with different units *(smartboard)*	Whiteboard Worksheets Matching cards Measuring instruments *Smartboard*	MSS1/L1.4 MSS1/L1.7

Week/ Session	Content	Learning Objectives: students will be able to	Assessment of Learning	Teaching and Learning Activities	Resources	Key Skills Basic Skills Every Child Matters
19	Time management	1. Write dates in common formats 2. Write the time in the 12-hour and 24-hour clock	Observation of activity Directed questioning	• Learners plan an building job • Access rail timetables online • Match dates and times	Matching cards Rail timetable Online game (Skillswise)	MSS1/L1.2
20	Problem Solving – Measure, shape and space (Formative assessment)	Complete practical exercise and receive feedback	Measure classroom and calculate the area and perimeter.	• Conversion between metric unit • Calculate the number of pipes that is required for the room.	Whiteboard Mini project Tape rule	MSS1/L1.8 MSS1/L1.9 ECM1
HALF TERM						
21	Recap of first half term topics	1. Complete problem solving test paper covering work completed during first half term	Observation of activity Directed questioning	• Learners to complete problem solving test paper and answer verbal questions • Set homework according to test results	Test paper Mental maths questions	N2/L1.3 N2/L1.7 MSS1/L1.4 MSS1/L1.7
22	Area and perimeter	1. Accurately calculate perimeter and area of simple shapes	Observe learners calculating area and perimeter of items in the classroom Directed questioning Checking/marking of worksheet	• Discussion on area, perimeter & volume in real life • Board work – calculate area, perimeter *(smartboard)* • Estimate then calculate the area and perimeter of the objects in room (table, computer screen etc.)	Whiteboard Worksheets Squared paper *Smartboard*	MSS1/L1.8 MSS1/L1.9
23	Volume	1. Accurately calculate the volume of cubes & cuboids.	Observation of activity Successful completion of task. Q&A	• Discussion on volume in real life situations • Worksheets - calculate volume • Activity – measure and calculate volume of cuboids	Graph/squared paper Whiteboard Internet *Smartborad*	MSS1/L1.10

Week/ Session	Content	Learning Objectives: students will be able to	Assessment of Learning	Teaching and Learning Activities	Resources	Key Skills Basic Skills Every Child Matters
24	Graphs, charts, tables and diagrams	1.Correctly extract and interpret information from lists, tables, charts and graphs	Checking/marking of worksheet Observation of activity – Peer assessment Directed questioning	• Discussion – different ways of presenting data • Q&A – extracting information from different sources • Activity – collect discrete data and present it in different ways • Worksheet – extracting and interpreting data	Charts, tables and graphs Quiz questions Worksheets Graph Paper *Smartboard*	HD1/L1.1 HD1/L1.2
25	Graphs, charts, tables and diagrams	1. Collect , organise and represent discrete data	Observation of activity – Peer assessment Directed questioning	• Discussion – different ways of presenting data • Activity – collect discrete data and present it in different ways • Paired quiz – spot the missing information from graph *(smartboard)*	Charts, tables and graphs Quiz questions Worksheets Graph Paper *Smartboard*	HD1/L1.1 HD1/L1.2
26	Mini Project – handling Data (Formative assessment)	1. Collect and present data in an appropriate graph, chart, table or diagram	Formative assessment of student's work Directed questioning	• Activity – collecting and presenting data – e.g. Investigate the costs involved in doing building job. Find an appropriate way to present findings.	Graph sheets Whiteboard	HD1/L1.3 HD1/L1.4 **ECM3**
EASTER BREAK						
27	Recap of data handling Feedback to students	1. Complete the revision questions on last term's topics 2. Review spring term progress sheet and complete targets for summer term	Checking/marking of worksheet	• Worksheets – Problem solving with data handling • Feedback with tutor – evaluate students progress with regard to their learning and their personal development	Worksheets Calculator	N2/L1.1-11 **ECM3**
28	Mean (average) and range	1. Calculate mean for the a set of up to 10 numbers 2. Calculate the range for a set of up to 10 numbers	Check for correct answers on group quiz Observation of activity	• Discussion – Averages in everyday life. • Worksheet – calculating averages and range • Activity – investigate averages from different data sources	Whiteboard Worksheets Quiz questions	HD1/L1.3 HD1/L1.4

Week/ Session	Content	Learning Objectives: students will be able to	Assessment of Learning	Teaching and Learning Activities	Resources	Key Skills Basic Skills Every Child Matters
29	Probability	1. Express the likelihood of an event occurring 2. Express probability / likelihood as a fraction percentage or decimal	Checking/marking of worksheet Observation of activity – Peer assessment Directed questioning	• Discussion – types of events • Paired activity – investigations using dice etc. • Worksheet – finding probability • Computer – Probability game on BBC Skillswise	Dice etc. Worksheets Computers	HD2/L1.1
30	Practice test	Complete practice FS and BS assessments Start on Application of Number portfolio	Check answers on practice test.	• Completing the questions and activities on FS assessment and AoN assignment brief	Assignments Calculators Protractors Pen Paper Graph paper	ECM 3
31	Summative assessment	Start functional skills assessment Continue on Application of Number portfolio	Mark work completed	Completing the questions and activities on FS assessment and AoN assignment brief	Assignments Calculators Protractors Pen Paper Graph paper	ECM 3
32	Summative assessment	Complete functional skills assignment Continue on Application of Number portfolio	Mark work completed	Completing the questions and activities on FS assessment and AoN assignment brief	Assignments Calculators Protractors Pen Paper Graph paper	ECM 3
33	Introduce Project 1-Planning a Holiday	1. Discus the appropriate research method and resources required to complete the task.	1. Work as a group to determine the things that should be considered when going on holiday.	• Gather as much information as possible from internet, brochures and flyers	project Calculators Protractors Pen Ruler Graph Paper	ECM 3 & 5
34	Presentation of Research findings and group feedback	1. Present findings of their research using appropriate charts and diagrams	1. Q&A. Observation of task	• Present their research findings to the whole class • Explain the rationale behind their choice of holiday destination • Discuss issues encountered and receive feedback from peers	Project Feedback sheets *Computers*	ECM 3 & 5

Week/ Session	Content	Learning Objectives: students will be able to	Assessment of Learning	Teaching and Learning Activities	Resources	Key Skills Basic Skills Every Child Matters
35	Introduce Project 2-Financial management	1. Present personal monthly budget plan to the group	Observation of presentation Q&A	• Discuss ways of managing spending • Calculate monthly budget • Present their research findings to the whole class • Explain the rationale behind their spending • Discuss problem encountered and receive feedback from peers	Project Feedback sheets *Computers*	ECM 3 & 5
36	Whole Class Evaluation and Review Progress	1. Review individual student's progress sheets	1. Q&A	• Whole class evaluation of tasks • Discuss progression for 09/10	Progress sheets Questionnaire	ECM 3 & 5

To obtain an editable version of the original Word document please send teaching ideas or any adult basic skills / functional skills resource that you would like to share to maggie@skillsworkshop.org

THANK YOU