



Scheme of Work 2021-2022

Course Title	NOCN Functional Skills MATHS				Curriculum Area		Mode of attendance	Weekly	
Subject / Unit Title	Functional Skills Maths				Level	Entry 3 – Level 1			
					N° of weeks	Various	Hours per week	4	
Tutor(s)	Abbie Smith				Awarding Body	NOCN	Course code	Various	
Venue / Room		Day		Time		SOW prepared by	Kareen Bennett	Verified by Department Manager	Claire Smith
Overall learning Outcomes/ Aims (mapped to syllabus)	<p>To deliver;</p> <ul style="list-style-type: none"> • N1 - Whole Number • N2 - Fractions, decimals and percentages • MSS 1 - Common measures • MSS 2 - Shape and space • HD 1 - Data and statistical measures • <p>To provide learners with the Mathematical skills and abilities they need to take an active and responsible role in their communities, everyday life, the workplace and educational settings. Enable learners to find and present mathematical information in ways that make them effective and involved as citizens, to operate confidently and to convey their ideas and opinions clearly. Support learner's progression and achievement by identifying, recording and tracking individual E & D issues. Providing adapted learning resources and support materials when necessary and selecting topics, when appropriate, that give the opportunity to cover E & D issues. Encourage learners to demonstrate their mathematical skills in a range of contexts and for various purposes. Develop and recognise the ability of learners to apply and transfer skills in ways that are appropriate to their situation. Non-qualification activity, mathematics relates to framework for placement</p>								
Group profile:e.g. Risk Assessment, special considerations, resources etc	Enclosed in separate working document.								

Topic Number	Date WC	Session learning objectives By the end of this session learners will be able to:	Links to Summative Assessment including deadlines	Notes (i.e. resources required/specific requirements)	Please indicate how embedding is occurring for the following four options: (details in lesson plans)			
					Functional Skills (Math and English)	E-Learning techniques	Equality and Diversity	Employability, enterprise and entrepreneurship
1		<p>Initial assessment Diagnostic Assessment</p> <ul style="list-style-type: none"> Identify the overall level for maths. Explore requirement for Functional Skills success. Acceptable standards. Identify weaknesses Set smart targets and strengths at the level achieved for Initial Assessment. 	<ul style="list-style-type: none"> Take the initial assessment. Discuss acceptable standards and Functional Skills requirement for success. Folders Review and discuss your Initial Assessment and Diagnostic result with your tutor. Review and discuss your Initial Assessment and Diagnostic result with your tutor. 	<ul style="list-style-type: none"> Identify strengths and weaknesses. Complete individual tasks to improve identified weaknesses within the assessed level. <p>Key words/spelling</p> <ul style="list-style-type: none"> Complete individual tasks to improve identified weaknesses within the assessed level. Functional and functionality Initial assessment Diagnostic <p>Learners will need:</p> <ul style="list-style-type: none"> IA and Diagnostic paper. pen and paper 	SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2	Direct to BBC.co.uk/s killswise Moodle Use of phones and classroom pc where applicable.	Links made to social or economic situations, differences in other countries wherever possible	<ul style="list-style-type: none"> To access TEACHING/ NURSING courses you will be required to sit math/numeracy tests
2		<p>Session 1: Four Rules of Number</p> <ul style="list-style-type: none"> Read, write, order and compare positive numbers up to 1000 Identify common terms with four rules of number Recall addition and subtractions and solve problems without a calculator <p>Session 2: Four Rules of Number</p> <ul style="list-style-type: none"> Recall multiplication facts (2,3,4,5,10 tables) Apply knowledge of four rules and solve problems in various contexts. Solve problem using multiplication and division without a calculator 	<ul style="list-style-type: none"> Basic functions of a calculator Add and subtract 3 digit numbers Solve practical problems involving addition and subtraction Solve practical problems involving multiplication and division 	<ul style="list-style-type: none"> Access BBC Skillswise to practise number Access 'maths is fun' <p>Key words/spellings</p> <ul style="list-style-type: none"> addition - and - plus subtraction - minus - take divide - share multiply - times 	SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2	Direct to BBC.co.uk/s killswise Moodle Use of phones and classroom pc where applicable.	Links made to social or economic situations, differences in other countries wherever possible	<ul style="list-style-type: none"> ability to calculate change (shops) budgeting (home - work) temperatures (family - patients)

3		<p>Session 1: Problem Solving</p> <ul style="list-style-type: none"> Use a calculator to calculate using whole numbers and decimals. Apply knowledge of four rules and solve problems in various contexts <p>Session 2: Checking Method</p> <ul style="list-style-type: none"> Identify different checking methods Use various checking methods to check calculations 	<ul style="list-style-type: none"> Basic functions of a calculator Add and subtract 3 digit numbers Solve practical problems involving addition and subtraction Solve practical problems involving multiplication and division 	<ul style="list-style-type: none"> Access BBC Skillswise to practise number Access 'maths is fun' <p>Key words/spellings</p> <ul style="list-style-type: none"> addition - and - plus subtraction - minus - take divide - share multiply - times 	<p>SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2</p>	<p>Direct to BBC.co.uk/s killswise</p> <p>Moodle Use of phones and classroom pc where applicable.</p>	<p>Links made to social or economic situations, differences in other countries wherever possible</p>	<ul style="list-style-type: none"> ability to calculate change (shops) budgeting (home - work) temperatures (family - patients)
4		<p>Session 1: Rounding and Estimation</p> <ul style="list-style-type: none"> Recall place value Estimate answers by rounding to the nearest 10, 100 and 1000 Apply knowledge of rounding to demonstrated effective level of accuracy <p>Session 2: Decimals</p> <ul style="list-style-type: none"> Identify its purpose and where it is commonly used. Read, write and understand decimals to 2DP in practical contexts e.g. money and measure Add, subtract and multiply decimal numbers Apply knowledge of decimals to solve problems in various contexts 	<ul style="list-style-type: none"> apply rounding to practical contexts recap on place value rough working out for comparison simple budgeting techniques <p>Questions and answers to learners to give examples of where decimals are seen/used.</p> <ul style="list-style-type: none"> Discuss rounding rule Round numbers to nearest whole/10 Solve problems using decimals Extension questions to be given to 	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. <p>Key Words / Spellings:</p> <ul style="list-style-type: none"> Round Nearest 1dp, 2dp Nearest whole number, 10, 100 and 1000 Nearest £1, 10p and pence Place value 	<p>SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2</p>	<p>Direct to BBC.co.uk/s killswise</p> <p>Moodle Use of phones and classroom pc where applicable.</p>	<p>Links made to social or economic situations, differences in other countries wherever possible</p>	<p>Working estimates when:</p> <ul style="list-style-type: none"> Cash Handling Buying Petrol Mileage Calculating prices Rounding up and down <p>Cash Handling Buying Petrol Mileage Calculating prices Rounding up and down</p>
5		<p>Session 1: Fractions</p> <ul style="list-style-type: none"> Identify parts of fractions and what they represent. Read, write and understand common fractions 2/3 1/10 3/4 <p>Session 2: Fractions</p> <ul style="list-style-type: none"> Recognise and use equivalent forms (simplify) (Fraction wall) Apply knowledge of simple fractions to find parts of quantities or measures 	<ul style="list-style-type: none"> Demonstrate how to order common fractions. Find fractional parts of quantities or measures. Simplify fractions. 	<ul style="list-style-type: none"> Access Fractions via BBC Skillswise or Maths is Fun Access Google to search for primary resources maths <p>Key words/spellings:</p> <ul style="list-style-type: none"> numerator denominator equivalent simplify 	<p>SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2</p>	<p>Direct to BBC.co.uk/s killswise</p> <p>Moodle Use of phones and classroom pc where applicable.</p>	<p>Links made to social or economic situations, differences in other countries wherever possible</p>	<ul style="list-style-type: none"> sale prices (1/4 off) the amount of fuel left in your tank measurements (1/2 Metre)
7		<p>Session 1: Percentages</p> <ul style="list-style-type: none"> Order and compare percentages Calculate simple percentage parts of money <p>Session 2 : Percentages</p> <ul style="list-style-type: none"> Find simple percentage parts of quantities and measure 	<ul style="list-style-type: none"> Demonstrate how to order and compare percentages Demonstrate how to find percentages using splitting method Problem solve to find percentages parts of simple numbers, e.g. 50% of £20 	<ul style="list-style-type: none"> Access You tube to recap/practice how to find parts of percentages video <p>Key Words / Spellings</p> <ul style="list-style-type: none"> Percentage <p>You will need:</p> <ul style="list-style-type: none"> Task sheet 	<p>SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2</p>	<p>Direct to BBC.co.uk/s killswise</p> <p>Moodle Use of phones and classroom pc where applicable.</p>	<p>Links made to social or economic situations, differences in other countries wherever possible</p>	<p>Discounts Commission Financial planning Managing business</p>

		Demonstrate knowledge of percentages by solving problems in a variety of contexts.		<ul style="list-style-type: none"> Smart board Calculator Pens Paper 				
8		<p>Session 1: Conversions</p> <ul style="list-style-type: none"> Recognise equivalencies between common fractions, decimals and percentages <p>Session 2: End of unit - Number</p> <ul style="list-style-type: none"> Learners to individually complete end of unit task appropriate for learner level Learner to make notes on revision pages 	<ul style="list-style-type: none"> Find equivalent fractions, decimals and percentages e.g. $\frac{1}{2} = 50\% = 0.5$ Problem solve to demonstrate knowledge in conversions. 	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. <p>Key Words / Spellings</p> <ul style="list-style-type: none"> Equivalent Convert Numerator Denominator Decimal Closed and open questions Survey Questionnaire Tally chart Frequency <p>You will need:</p> <ul style="list-style-type: none"> Paper Calculator Pen Task sheets 	<p>SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2</p>	<p>Direct to BBC.co.uk/s killswise</p> <p>Moodle Use of phones and classroom pc where applicable.</p>	<p>Links made to social or economic situations, differences in other countries wherever possible</p>	<p>Working with real data such as</p> <ul style="list-style-type: none"> statistics in care stock levels in business
9		<p>Session 1 : Handling Data</p> <ul style="list-style-type: none"> Identify, define and understand the terminology Extract data from tables, graphs, charts and diagrams <p>Session 2: Collecting Data</p> <ul style="list-style-type: none"> Identify types of data and what it is used for. Identify how it is relevant to daily life and work Investigate different representations of data Design a questionnaire Collect data 	<p>Summative: mix and match, creation of poster.</p> <p>Collect data within your group using your questionnaire or survey - depending on size branch out</p> <ul style="list-style-type: none"> Organise your data using a tally chart 	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. <p>Key Words/Spellings</p> <ul style="list-style-type: none"> Continuous data Discrete data <p>You will need:</p> <p>A3 paper scissors glue task sheet of terms and definitions</p>	<p>SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2</p>	<p>Direct to BBC.co.uk/s killswise</p> <p>Moodle Use of phones and classroom pc where applicable.</p>	<p>Links made to social or economic situations, differences in other countries wherever possible</p>	<ul style="list-style-type: none"> making decisions at work selecting relevant information reading data from a chart to understand patient progress tracking student grades to see development
10		<p>Session 1: Tally Chart and Frequency Table</p> <ul style="list-style-type: none"> Design and complete a tally chart Find frequency Compare and describe data <p>Session 2 : Display and record – Pictograms</p> <ul style="list-style-type: none"> Record/present data in a pictogram Compare and describe data 	<ul style="list-style-type: none"> Create a pictogram and a bar chart to present information effectively Summarise your results 	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. Key words/Spellings X and Y axis Scale Pictogram <p>You will need:</p> <ul style="list-style-type: none"> Graph paper Rulers, pencil and colouring pens Task sheets Collate all data 	<p>SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2</p>	<p>Direct to BBC.co.uk/s killswise</p> <p>Moodle Use of phones and classroom pc where applicable.</p>	<p>Links made to social or economic situations, differences in other countries wherever possible</p>	<ul style="list-style-type: none"> nursing - patients data height/weight temp etc - childcare - child development charts / reward charts - sales - stock levels - holiday reps - charts -
11		<p>Session 1 : Display and record – Bar chart</p> <ul style="list-style-type: none"> Record/present data in a bar chart Compare and describe data <p>Session 2: End of Unit</p>	<ul style="list-style-type: none"> Create a bar chart to present information effectively Summarise your results <p>Formative assessment</p>	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. Key words/Spellings X and Y axis Scale Pictogram 	<p>SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4</p>	<p>Direct to BBC.co.uk/s killswise</p> <p>Moodle</p>	<p>Links made to social or economic situations, differences in other countries</p>	<ul style="list-style-type: none"> nursing - patients data height/weight temp etc - childcare - child development charts / reward

		<ul style="list-style-type: none"> Learners to individually complete end of unit task appropriate for learner level Learner to make notes on revision pages 		<p>You will need: · Graph paper · Rulers, pencil and colouring pens · Task sheets</p> <ul style="list-style-type: none"> Collate all data 	Wt/L2.2	Use of phones and classroom pc where applicable.	wherever possible	charts- sales - stock levels- holiday reps - charts ·
		(non assessed at E3, progression content only)	<ul style="list-style-type: none"> In groups, learners to complete the mix and match sheet. Cards to be placed under each heading to show learning has taken place Learners to answer level appropriate questions. Learners to demonstrate they can calculate mean, median, mode and range 	<ul style="list-style-type: none"> Practice skills learned during the lesson by accessing BBC Skills wise and Maths is Fun <p>Key Words/Spellings</p> <ul style="list-style-type: none"> Mean / Average Range / difference 	SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2	Links made to social or economic situations, differences in other countries wherever possible	Marketing client surveys Product Purchasing	<ul style="list-style-type: none"> using timetables plan events
12		<p>Session 1: Distance</p> <ul style="list-style-type: none"> Understand and measure in different units Estimate and measure distance in common units <p>Session 2: Perimeter</p> <ul style="list-style-type: none"> Understand what perimeter is and how it is used in context Find perimeter of simple shapes 	<p>Discuss with peers the units used in distance.</p> <ul style="list-style-type: none"> Measure distance using the correct tools in the classroom Problem solve to demonstrate knowledge and skills learned. 	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. <p>Key Words / Spellings</p> <ul style="list-style-type: none"> metre centimetre <p>You will need:</p> <ul style="list-style-type: none"> Ruler Measure Tape Task sheets Pen, paper and calculators Whiteboard 	SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2	Links made to social or economic situations, differences in other countries wherever possible	Marketing client surveys Product Purchasing	<ul style="list-style-type: none"> Distance of equipment from client for treatments, postural analysis tape measure & plumb line, time route planning for deliveries (shortest)
14		<p>Session 1: Area</p> <ul style="list-style-type: none"> Understand what area is and how it is used in context Work out the area of simple shapes <p>Session 2 : Mass</p> <ul style="list-style-type: none"> Estimate and measure weight in common units Read and compare weight in common units Mass problem solving 	<ul style="list-style-type: none"> Identify where PAV is relevant in life, at work and vocational study Demonstrate how to calculate perimeter and area of simple and compound shapes Calculate simple and compound area <p>Discuss where weight is commonly used and its units of measure</p> <ul style="list-style-type: none"> Use tools to measure mass Record and compare weight in common units Problem solve to demonstrate knowledge and skills. 	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. <p>Key Words /Spelling</p> <ul style="list-style-type: none"> Kg, grams and tonnes <p>You will need:</p> <ul style="list-style-type: none"> Objects to weight Scale Task sheets Pens, paper and calculator Smartboard 	SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2	Direct to BBC.co.uk/s killswise Moodle Use of phones and classroom pc where applicable.	Links made to social or economic situations, differences in other countries wherever possible	<ul style="list-style-type: none"> manual handling rules lifting heavy loads moving patients Measures at work packing items cooking / recipes Diet and body image
15		<p>Session 1: Capacity</p> <ul style="list-style-type: none"> Estimate and measure capacity in common units. 	<ul style="list-style-type: none"> Discuss units of measure used in capacity and where it is commonly used. Measure capacity in common units 	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. 	SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4	Direct to BBC.co.uk/s killswise Moodle	Links made to social or economic situations, differences in	<ul style="list-style-type: none"> CC in engines measures in catering cooking animal care - liquid feeds,

		<ul style="list-style-type: none"> Read and compare capacity in common units. <p>Session 2: Temperature</p> <ul style="list-style-type: none"> Estimate and measure temperature in common units. Read and compare temperature in common units 	<p>to compare effectively</p> <ul style="list-style-type: none"> Problem solve to demonstrate competence in the subject. Identify the units of measure used in temperature Demonstrate how to use tools for measuring temperature effectively Read, record and compare temperature in common units Problem solve to demonstrate knowledge and skill learned Identify the difference between negative and positive temperature <ul style="list-style-type: none"> Task sheets 	<p>Key words / Spelling</p> <ul style="list-style-type: none"> Litres, millilitres and centilitres <p>You will need:</p> <ul style="list-style-type: none"> Task sheets Pens, paper and calculator Measuring tools 	Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2	Use of phones and classroom pc where applicable.	other countries wherever possible	ponds/tanks, chemicals · mixing weed killer (gardening services) · drinks (catering / bar work)
16		<p>Time</p> <ul style="list-style-type: none"> Read and write time – 12hr and 24 hr format Solve problems involving time Identify units of measure for time 	<ul style="list-style-type: none"> Calculate time Plan timings accurately e.g. travel to appointment, cooking time 	<p>Key words</p> <ul style="list-style-type: none"> Analogue Digital Decade Weeks Year Day Calendar Diary Century Millennium Timeline 	SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2	Direct to BBC.co.uk/s killswise Moodle Use of phones and classroom pc where applicable.	Links made to social or economic situations, differences in other countries wherever possible	<ul style="list-style-type: none"> patient care food preparation holiday weather information sales - purchase and stock impacts
16		<p>Session 1: Space and Shape</p> <ul style="list-style-type: none"> Position objects/shapes on drawing plans Identify positional and directional key terms Sort and classify 2D and 3D shapes Identify names, properties angles and lines of symmetry. Solve practical problems using properties of shapes e.g. tiling <p>Session 2 : End of Unit</p> <ul style="list-style-type: none"> Learners to individually complete end of unit task appropriate for learner level Learner to make notes on revision pages 	<p>Identify common shapes Use positioning vocabulary Identify the difference between 2d and 3d shapes.</p>	<ul style="list-style-type: none"> Access BBC Skillswise and Maths is fun for further resources to use. <p>Key Words /Spellings</p> <ul style="list-style-type: none"> Centigrade Negative and Positive <p>You will need:</p> <ul style="list-style-type: none"> Thermometer Task sheets Pens and paper Calculator 	SLlr/L2.1 SLlr/L2.2 SLlr/L2.3 SLlr/L2.4 SLc/L2.1 SLc/L2.2 SLc/L2.3 SLc/L2.4 Rt/L2.2 Rt/L2.3 t/L2.4 Wt/L2.2	Direct to BBC.co.uk/s killswise Moodle Use of phones and classroom pc where applicable.	Links made to social or economic situations, differences in other countries wherever possible	<ul style="list-style-type: none"> patient care food preparation holiday weather information sales - purchase and stock impacts

20		Exam Preparation							
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