

**Numeracy Targets**

**First Level**



**Introduction**

The following booklet contains a list of suggested First Level Numeracy Targets. The targets are based on the Experiences and Outcomes in Curriculum for Excellence. The targets should be used alongside East Ayrshire’s Numeracy and Mathematics Planners and are broken down in the same way: Beginning of the Level, During the Level and During and Towards the End of the Level.

Why Target Set in Numeracy

Learners learn best when they know where they are in their learning, where they are going and how they are going to get there. Target setting with learners enables them to take ownership and lead their learning.

Targets can be used with individual learners or groups of learners. Alternatively, they can be used with a class to help learners see the progression through the topic. As can be seen in the photograph at the side starting with grouping and sharing at the bottom and progressing through to solving word problems and creating and using fact families.

Target setting procedures may vary from school to school and will take account of each establishment’s circumstances and monitoring procedures. This document can be used by individual teachers or as part of whole school monitoring procedures.

These targets have been broken down into smaller targets by EAST in their document Numeracy and Maths Targets for Individual Learning Plans which is available through their GLOW tile. These targets will help when creating Individual Learning Plans.

**Beginning of the First Level – Suggested Estimating and Rounding Targets**

* I can explain what estimation means
* I can visually estimate quantities to 20 and count to check
* I can estimate quantities to 20 by using the doubling strategy
* I can estimate quantities to 20 by using the rounding strategy

**During the First Level – Suggested Estimating and Rounding Targets**

* I can use a number line, number track or 100 square to help me round up or down to the nearest 10.
* I can identify numbers which lie halfway between 0-10, 10-20, 20-30, etc.
* I can understand and use the rules of rounding, (1-4 round down, 5-9 round up)
* I can round any 2 digit numbers to the nearest 10
* I can use my knowledge of rounding to estimate the place of numbers on a blank number line
* I can estimate the answers to 2 digit addition and subtraction calculations using rounding

**During and Towards the End of First Level - Suggested**

* I can apply my knowledge of rounding to estimate answers to addition and subtraction calculations (2 digit numbers)
* I can round 3 digit numbers to the nearest 10
* I can round 3 digit numbers to the nearest hundred
* I can apply my knowledge of rounding to estimate answers to addition and subtraction calculations (3 digit numbers)
* I can estimate the position of numbers on a number line up to 3 digits
* I can estimate the position of numbers half way and a quarter way between numbers

**Beginning of the First Level – Suggested Place Value Targets (up to 100)**

* I can find numbers in my world.
* I can talk about why these numbers are there.
* I can tell someone the 10 digits.
* I can count forwards from 0 to 100 starting from any number.
* I can count backwards from 0 to 100 starting from any number.
* I can read numbers to 100.
* I can write numbers to 100 starting from any number.
* I can order numbers forwards to 100 starting from any number.
* I can order numbers backwards from 100 starting from any number.
* I can read numbers to 20 in words.
* I can write numbers to 20 using words.
* I can place a number on a number line to 100.
* I can talk about a numbers place on a number line to 100.
* I can identify numbers missing from a 100 square.
* I can count in 10s to 100 and put them in order. (decades)
* I know that there are zero units in decade numbers.
* I can count in tens from any number in a 100 square.
* I can count on and back in 2s.
* I can count on and back 5s.
* I can recognise odd and even numbers to 20.
* I can partition numbers to 100 and identify their column value.
* I can place things in order: 1st, 2nd, 3rd
* I can read these in words: first, second, third

**During the First Level - Suggested Place Value Targets (100 up to 200)**

* I can count forwards starting from any number greater than 100.
* I can read numbers greater than 100.
* I can write numbers in digits beyond 100 starting from any number.
* I can order numbers in digits beyond 100 starting from any number.
* I can read 2 digit numbers in words.
* I can write 2 digit numbers in words.
* I can place a number on a number line greater than 100.
* I can talk about a numbers place on a number line greater than 100.
* I can identify the number before and after greater than 100.
* I can partition 3 digit numbers and identify their column value (HTU).
* I can explain how many ones make a ten.
* I can order numbers forwards greater than 100.
* I can order number backwords greater than 100.
* I can count on and back in 2s beyond 100.
* I can count on and back in 5s beyond 100.
* I can count on and back in 10s beyond 100.
* I can count on and back in 100s to 1000.
* I can recognise odd and even numbers on a 100 square.
* I can use 0 as a place holder in 3 digit numbers.
* I can partition 2 digit numbers into column value.
* I can partition 2 digit numbers to make friendly numbers.
* I can identify and record numbers to 100 using concrete materials.
* I can identify and record numbers to 100 in pictures.
* I can identify 1 more or 1 less than any number to 100.
* I can identify 2 more or 2 less than any number to 100.
* I can identify a pattern in number sequence.
* I can create a pattern in number sequence.

**During and Towards the End of First Level - Suggested Place Value Targets (up to 1000)**

* I can count up to 1000 starting from any number.
* I can read numbers up to 1000.
* I can write numbers using digits up to 1000.
* I can order numbers using digits up to 1000.
* I can place a number on a number line in the correct position up to 1000.
* I can count on and back in 2s up to 1000 from any number.
* I can count on and back in 5s up to 1000 and recognise the 0/5 pattern.
* I can count on and back in 10s up to 1000 from any number.
* I can count on and back in 100s up to 1000 from any number.
* I can identify the number before and after for any number up to 1000.
* I can partition 3 digit numbers and identify their quantity value and

 column value. (quantity = 900, column = 9 hundreds)

* I can explain how many tens make a hundred and make an exchange.
* I can explain how many hundreds make a thousand and make an exchange.
* I can use 0 as a place holder in 4 digit numbers.

**Beginning of the First Level – Suggested Addition and Subtraction Targets**

* I can Add one more using what I know about number after and 1 more
* I can Add 0 and know that I stay in the same place on a number track and add no more
* I can add two more using what I know about jumping over a number
* I can add by combining groups together and **counting all** to find the total
* I can count back 1 using what I know about 1 less, number before, -1
* I can count back 2 using what I know about 2 less, jumps back over, -2
* I can count back 0 using what I know about staying in the same place, -0
* I can partition to create facts to 5
* I can reverse facts, commutative law, (2+3=5, 3+2=5)
* I can recall number facts to 5
* I can investigate and recall doubles facts within 10
* I can investigate and recall near doubles facts within 10
* I can build number facts to 10
* I can recall number facts to 10
* I can subtract by taking away, hiding objects or crossing out
* I can split a quantity to work out a calculation, e.g. There are 10 pencils, 7 are Ann’s how many are Tom’s?
* I can work out calculations involving comparing, Jack has 5 cards, Sal has 2 cards, how many more does Jack have?
* I can add in steps of 1 and 2 using a graded number line (counting on)
* I can add in steps of 10 hearing the pattern, using a 100 square
* I can add in steps of 5 hearing the pattern, using a 100 square
* I can add 11 by adding 10 and adjusting
* I can add 9 by adding 10 and adjusting
* I can add bridging 10 mentally

**During the First Level – Suggested Addition and Subtraction Targets**

* I can make connections between addition and subtraction
* I can identify and use related facts, know 1, know 4

4 + 5 = 9 5 + 4 = 9 9 – 4 = 5 9 – 5 = 4

* I can use a 100 square to work out calculations
* I can add by counting on
* I can subtract by counting back
* I can use the bridging and adjusting strategy
* I can use my doubles knowledge to work out calculations
* I can apply my knowledge of doubles to working out near doubles
* I can recall my compliments to 10
* I can apply my knowledge of compliments to 10 to other calculations
* I can use an empty number line to help me work out calculations
* I can partition numbers into tens and units to make adding easier using the grid method to support my thinking
* I can partition numbers into tens and units to make subtracting easier using the grid method to support my thinking
* I can add with exchange mentally using the grid method to support my thinking
* I can subtract with exchange mentally using the grid method to support my thinking

**During and Towards the End of First Level – Suggested Addition and Subtraction Targets**

* I can extend my quick recall of addition facts to 100
* I can extend my quick recall of subtraction facts within 100
* I can add with exchange as a mental process using grid method for support  27 + 36   as  40 + 30 = 70       7 + 6 = 13    70 + 13 = 83
* I can subtract with exchange as a mental process using grid method for support
* I can use formal methods for addition

 2-digit + 2-digit no exchange

 2-digit + 3-digit no exchange

 2- digit + 2-digit exchange

 2-digit + 3-digit exchange

 2-digit from 2-digit no exchange

 2/3-digit from 3-digit no exchange

 2-digit from 2-digit exchange

 2/3-digit from 3-digit exchange

* I can estimate an answer to a calculation then check
* I can use inverse operations to check answers to calculations
* I can explain links between + & - as inverse operations
* I can partition to add within 1000
* I can partition to subtract within 1000
* I can count on and back to find the difference using an empty number line
* I can use compliments to 100 and 1000 to calculate mentally,  73 + 37 as 70 + 30 and 3 + 7
* I can use doubles and near doubles to calculate mentally  40 + 50 as 40 + 40 + 10
* I can confidently use mental maths strategies to add within 1000 using the most efficient strategy
* I can confidently use mental maths strategies to subtract within 1000 using the most efficient strategy
* I can use formal methods to add numbers more than 3 digits
* I can use formal methods to subtract numbers more than 3 digits
* I can apply whole number knowledge to addition with decimals
* I can apply whole number knowledge to subtraction with decimals
* I can use written calculations to add decimal numbers
* I can use written calculations to subtract decimal numbers
* I can use the most efficient way to solve a calculation

**Beginning of the First Level – Suggested Multiplication and Division Targets**

* Counting in groups (Forward and Back)
* I can count in twos, fives, and tens forwards and back
* I can make equal groups and can combine them to make a larger number
* I can take a large number and share it into equal groups/sets
* I can split a group of items into smaller groups
* I can share and group items from a larger quantity understand some might be left over
* I can explain what remainder means

**During the First Level – Suggested Multiplication and Division Targets**

* I can display equal groups in different ways and write number sentences about them
* I can recognise, make and add equal groups.
* I can write sentences using X symbol and creating a picture.
* I can explore how times-tables are built up and can discuss the patterns within and between them – 2, 4, and 8 (maybe return to 8 at later date, depending on children)
* I can Identify the links and connections between multiplication and division
* I can use “inverse operation” terminology
* I can recall my 2, 4 and 8 times-table quickly and accurately
* I can link 4 as double 2 to help work out answers (4x2=8 is double 2x2=4) if one factor doubles/halves the answer doubles/halves,
* I can use skip counting on/back to help me work out my 2, 4 times tables.
* I can use repeated addition/subtraction to help me work out my 2, 4 times tables.
* I can Explore how times-tables are built up and can discuss the patterns within and between them 10 and 5
* I can use arrays, Cuisenaire Rods, make doubles/halves, 5 times table is half 10 times table.
* Recall my 10 and 5 times-table facts quickly and accurately
* Explore how times-tables are built up and can discuss the patterns within and between them - 3, 6 and 9 (maybe return to 9 at later date, depending on children).
* I can use arrays, Cuisenaire Rods, make doubles, notice switchers using arrays, use number-lines to show similarities and differences
* I can recall my 3, 6, and 9 times-table quickly and accurately
* I can link 6 as double 3 to help work out answers (6x2=12 is double 3x2=6) if one factor doubles/halves the answer doubles/halves,
* I can skip count on/back to help me work out my 3- and 6-times tables
* I can use repeated addition/subtraction to help me work out my 3- and 6-times tables
* I can use my knowledge of how a times-table is built to solve division problems
* I can make equal groups by grouping and sharing
* I can learn 7X7

Please Note: The rest has already been learned through switching the calculation. I.e. 7X6 can be calculated by switching 6X7

* I can recall all table facts

**During and Towards the End of First Level – Suggested Multiplication and Division Targets**

* I can multiply and divide by 10 and 100
* I understand that digits move one place to left in multiplying 10 and division digits move one place to the right.
* I understand that digits move two places to left when multiplying by 100 and division digits move two places to the right.
* I can create new table facts from existing knowledge I.e., 2x6 = 12, 20x6 = 120, 20x60 = 1200
* I can use my times-table facts and a variety of mental maths methods to work out multiplication calculations – pairs, multiples of 10 and 100,
* I can use a variety of mental math strategies to work out multiplication calculations I.e., Number-talk strategies and Grid method
* I can use strategies to work out a table fact for multiplication and division I.e., Doubling/halving, trio fact cards, counting on/back, partitioning, grid methods
* I can use multiples of 10 and 100 to create new facts I.e., from 10 x 34 can work out 20 x 34
* I can multiply and divide by 1000
* I understand why I move the digits 3 places to left or right
* I can use my multiplication facts and a range of mental strategies in multiplication calculations and Number-talk strategies i.e., Doubling and halving, partitioning, rounding and adjusting, using multiples of 10, and 100.
* I can use grid method to work out the mental process of multiplication these calculations.

Multiply 2-digit numbers by 1-digit number

Multiply 3-digit numbers x 1-digit number

Multiply 2-digit numbers x 2-digit numbers

Multiply 3-digit numbers x 2-digit numbers

* I can use formal methods in multiplication calculations (following same format as shown above)
* I can use chunking method as repeated subtraction to work out division calculations

2-digits divided by 1 digit

3-digits divided by 1 digit

Use multiples of 10 to support

* I can use formal methods to record division calculations

2-digit divided by 1 digit

3-digit divided by 1 digit

* I can select the most appropriate/efficient strategy to solve multiplication/division calculations

**Beginning of the First Level – Suggested Targets for Fractions, Decimals and Percentages Targets**

* I can recognise that two halves make one whole
* I can recognise that 4 quarters make one whole
* I can identify ½ of a shape by colouring or folding
* I can use concrete materials to show items can be shared equally into halves and quarters
* I can read, write and use the notation for ½ and ¼
* I can cut an object into smaller equal parts
* I can talk about the denominator as the number of equal parts the whole has been divided into and

the numerator how many equal parts are used

* I can identify ½ of a number (quantity) by halving/dividing by 2
* I can identify ¼ of a shape by colouring or folding
* I can identify ¼ of a number (quantity) by dividing be 4
* I can use materials to partition and repartition amounts to show fractions that are equivalent (½ and ¼).

**During the First Level – Suggested Targets for Fractions, Decimals and Percentages**

* I can identify ½ on a number line
* I can identify ¼ on a number line
* I can identify numbers half way between whole numbers on a number line, e.g. 1, 1 ½, 2, 2 ½, etc.
* I can find half of one and two digit numbers by dividing by two (within the two times table)
* I can find a quarter of one and two digit numbers by dividing by two (within the four times table)
* I can identify 1/10 of a shape by colouring or folding
* I can identify 1/10 of a number (quantity) by dividing by 10
* I can use place value and number facts to find a tenth of a number (links HTU and multiplying)
* I can record and write tenths on a number line and know 10 tenths are equal to one whole
* I can share shapes or objects into 5 equal parts using concrete materials
* I can identify 1/5 of a shape by colouring or folding
* I can identify 1/5 of a number (quantity) by dividing by 5
* I can record and write fifths on a number line and know 5 fifths are equal to one whole
* I can use bar models to represent splitting a quantity into : ½, ¼, 1/10, 1/5
* I can use knowledge of quarters to investigate ¾ of the way along a bar model

**During and Towards the End of First Level – Suggested Targets for Fractions, Decimals and Percentages**

* I can recognise how fractions are related to division
* I can recognise all simple fractions to tenths and associated notations
* I can recognise ½, 1/3, ¼, 1/5, 1/10 and use these to find fractions of numbers and shapes
* I can understand and identify the numerator and denominator in simple fractions
* I can understand that increasing the denominator while keeping the numerator constant reduces the size of the fraction.
* I can understand that 2/2 =1 and 4/4=1, etc.
* I can compare fractions with the same denominator through practical activities
* I can compare simple fractions through practical activities including equivalent fractions
* I can identify where simple fractions with the same denominator are located on the number line
* I can order fractions with the same denominator
* I can identify equal fractions in models/pictures and create a set of equal fractions
* I can read, write and use names and notation to describe simple fractions
* I can recognise common fractions where the numerator is more than one e.g. ¾, 2/5, 3/10
* I can find simple fractions of one and two digit numbers and shapes
* I can calculate one tenth of an amount by dividing by 10, up to 100
* I can link my understanding of fractions to money, e.g. 50p/half, 25p/quarter of a £1
* I can explore the link between ¼ and 2/8 and 1/5 and 2/10, etc. using a number line

**Beginning of the First Level – Suggested Money Targets**

* I can recognise all coins to £1.
* I can use coins (up to 20p) to pay and give change.
* I can count in 2p, 5p and 10p.
* I can use mental strategies in money calculations to the value of 20p.
* I can find totals of a collection of coins to at least 20p.
* I can use the p and £ symbol.
* I can find different ways of making 5p and 10p.
* I can pay for goods starting with larger denominations of coins.

**During the First Level – Suggested Money Targets**

* I can add and subtract amounts to at least £1.
* I can give change from 20p, 50p, £1.
* I understand that amounts under £1 can be written in decimal notation e.g. £0.07 = 7p.
* I know the decimal point separates the pounds and the pence.
* I know that there are always 2 digits after the separator (decimal point).
* I can identify and use all coins up to £2.
* I can record amounts up to £5 using coins.
* I can use equivalences of money e.g. £1 = 50p + 20p + 20p + 10p.
* I can count in 20p and 50p up to £5
* I can recognise all coins and notes up to £10
* I can use mental strategies in money calculations.

**During and Towards the End of First Level – Suggested Money Targets**

* I can recognise all coins and notes up to the value of £20.
* I can identify and make equivalences for £5, £10 and £20 notes.
* I can identify and use coins that can be used to pay for exact quantities up to and including £10.
* I can pay for goods using the least amount of coins.
* I can use column methods for addition and subtraction for money up to £10.
* I know that amounts which are whole pounds require a decimal point and two 0s.
* I know that calculator displays will not place a zero in the hundredths place hence 4.02 = £4 and 2 pence and 4.2 = £4 and 20 pence, NOT £4 and 2 pence.
* I can convert £ to p and p to £.
* I recognise that there are different methods of payment available.
* I can discuss the need to budget.
* I can discuss the need to save if there isn’t enough money for something I want to buy.
* I can use mental strategies in money calculations.

**Beginning of the First Level – Suggested Measurement Targets**

**Length and Height (inc. Perimeter and Area)**

* I can compare lengths using mathematical language I.e., long, longer, longest
* I can compare heights using mathematical language I.e., short, shorter, shortest
* I can measure lengths using non-standard units
* I can measure heights using non-standard units
* I can use a ruler to measure length (exploring cm)
* I can add length problems
* I can subtract length problems

**Weight, Volume, and Mass**

* I understand what weight and mass of an object is
* I can measure mass (Non-standard units I.e., cubes or bricks)
* I can compare mass (using balance scales and non-standard units) heavier and lighter
* I can solve weight and mass problems
* I understand what capacity and volume is
* I can measure capacity (using a variety of non-standard units I.e., jugs and bottles using language like full/empty more or less)
* I can compare capacity by ordering containers from largest to smallest capacity and compare using symbols <, > or =

 **During the First Level – Suggested Measurement Targets**

**Length and Height (inc. Perimeter and Area)**

* I can compare lengths using mathematical language I.e., long, longer, longest
* I can compare heights using mathematical language I.e., short, shorter, shortest
* I can measure lengths using non-standard units
* I can measure heights using non-standard units
* I can use a ruler to measure length (exploring cm)
* I can add length problems
* I can subtract length problems

**Weight, Volume, and Mass**

* I understand what weight and mass of an object is
* I can measure mass (Non-standard units I.e., cubes or bricks)
* I can compare mass (using balance scales and non-standard units) heavier and lighter
* I can solve weight and mass problems
* I understand what capacity and volume is
* I can measure capacity (using a variety of non-standard units I.e., jugs and bottles using language like full/empty more or less)
* I can compare capacity by ordering containers from largest to smallest capacity and compare using symbols <, > or =

**Temperature**

* I understand what temperature is
* I understand what degrees centigrade is
* I can read a thermometers scale (1s, 2s, 5s and 10s)
* I can take readings around a variety of areas and compare the results

**During and Towards the End of First Level – Suggested Measurement Targets**

**Length and Height (inc. Perimeter and Area)**

* I can measure length (cm and m) revision and use the appropriate tools
* I can find equivalent lengths (m and cm) and recognise that 100cm = 1m (not decimals yet) I.e., 5m= 500cm
* I can find equivalent lengths (mm and cm) - using bar models 120cm = 100cm and 20cm = 1m 20cm
* I can compare lengths (mm, cm, and m) - converting meters to centimetres to make calculations easier and vice versa
* I can add lengths (cm, m, and mm)
* I can add lengths and use it to work out perimeter
* I know what the perimeter is
* I can measure perimeter on a grid
* I can measure the perimeter (2D rectilinear shapes)
* I can calculate the perimeter - use understanding of properties of 2D shape to calculate perimeter
* I can solve perimeter problems
* I can subtract lengths (cm, m, and mm) - Finding difference between two lengths
* I can describe what area is
* I can multiply lengths and heights using a grid or square paper and use it to work out area
* I can use the notation cm2 and m2
* I can recognise that different shapes can have the same area
* I can work out area of 2D shape and real-life surfaces
* I can divide lengths (Revision)

**Weight, Volume, Capacity and Mass**

* I can compare mass using balance scales (Revision) more > less < language and symbols,
* I can measure mass in grams - using gram weights on a balance scale and dial scales, (Revision)
* I can estimate and weigh objects using KG and Grams
* I can estimate and weigh objects accurately using a range of instruments
* I can show my understanding that 1000g = 1kg by converting units
* I can add and subtract weights with two digits and know when to convert to make calculation easier
* I can recognise and discuss the litre
* I can recognise that 1000ml (ml) = 1 litre (l)
* I can recognise that 500ml = half a litre
* I can show my understanding that 1000ml=1L by converting units
* I can read and record volumes using a variety of containers including cylinders and jugs
* I can add and subtract volumes with 2 digits
* I can estimate and measure accurately the volume of objects using a variety of instrument

**Beginning of the First Level – Suggested Information Handling Targets**

* I can use signs and charts around me for information
* I understand why people gather, combine and display information
* I can use signs and charts to help me plan my daily life
* I have discovered examples of information being presented in different ways around me
* I can use and collect information from a simple Venn and Carroll diagram
* I can read, understand and extract information from displays by finding, counting and comparing e.g., pictograph, Venn

 Diagram and Carroll Diagram

* I can talk about, ask and create questions and find specific information from tables, bar graphs, Venn diagrams and

 Carroll Diagram

* I can answer questions about the information I have found
* I can suggest different ways for grouping the same set of objects

**During the First Level – Suggested Information Handling Targets**

* I can collect information from a range of sources I.e., Pictures, diagrams, pupils in class, within the environment
* I can create a class and conduct a class survey
* I can sort and organise according to others criteria and explain what I have done
* I can make up my own criteria for sorting
* I can sort and organise according to my own criteria and explain what I have done
* I can use tally marks to count and display how many
* I can create a simple table to record my findings
* I can create a diagram or chart to record my findings
* I can talk about and share information from a simple frequency table
* I can display information from a frequency table on a bar graph including simple graduated axes
* I can make a bar graph of information with axes
* I can create a table with row and column headings
* I can create a Venn Diagram using my information gathered
* I understand that computer spreadsheets can be used to record information

**During and Towards the End of First Level – Suggested Information Handling Targets**

* I can interpret information from a variety of displays, i.e. Bar graphs, pictographs, Venn and Carroll diagrams
* I can compare similarities and differences between these displays
* I can understand and explain the term “Scale”
* I know how to work out the scale intervals and how they may change depending on the numbers found
* I can read a scale, understand and extract information from a line graph
* I understand that surveys are a way to collect information about something
* I can study a survey and collect information from it
* I can record and display information from a survey
* I can create a line graph from the results of a survey
* I can discuss and create my own survey using a simple questionnaire with Yes/No questions
* I can record results from this survey on a frequency table using rows and columns and grouped tally marks
* I can transfer gathered information onto an Excel spreadsheet
* I can use Excel to produce a chart from a pre-made spread sheet
* I can use information I have gathered to produce a chart of my own (i.e. Line or Bar)
* I can use a computer package where possible to create a table or chart
* I can use a computer package to display my information in a variety of complex ways