

East Lothian 'CFE Numeracy and Mathematic' Framework

Experiences and outcomes	Time	Measurement	Patterns & Relationships
On track in the nursery	<p>I am aware of how routines and events in my world link with times and seasons, and have explored ways to record and display these using clocks, calendars and other methods.</p> <p>MNU 0-10a</p> <ul style="list-style-type: none"> I can identify when different events happen in a day, for example, morning, afternoon etc. I can name the days of the week. I can say what happens in different seasons. I can recognise devices used to measure time. I can engage with and talk about devices used to measure time. I can be introduced to ordinal numbers through the daily calendar. 	<p>I have experimented with everyday items as units of measure to investigate and compare sizes and amounts in my environment, sharing my findings with others</p> <p>MNU 0-11a.</p> <ul style="list-style-type: none"> I can explore measurements within height, weight, length and capacity within everyday play. I can explore tools for measure through play (construction, baking etc.) I can explore measure using non-standard unit, eg. Sand, water, using containers. I can use the language long, short, tall, thick and thin. I can use comparative vocabulary according to length (longer/shorter, taller/smaller). I can use comparative vocabulary according to weight (heavier/lighter) I can use comparative vocabulary according to volume (full/empty/more than/less than). 	<p>I have spotted and explored patterns in my own and the wider environment and can copy and continue these and create my own patterns.</p> <p>MTH 0-13a</p> <ul style="list-style-type: none"> I can explore pattern in the environment e.g. spots and stripes. I can explore a sound or movement pattern. I can talk about what makes a pattern a pattern. I can make my own patterns using a variety of media. I can say what comes before and after in a simple repeating pattern. I can copy a simple pattern to make one the same.
On track in P1	<ul style="list-style-type: none"> I can participate in daily discussions about the day, date, month and year and how these are displayed. I can use the language of time: day, night, morning, afternoon, before, after, yesterday and tomorrow. I can order the events of my day in a logical sequence. I can sequence the days of the week in the correct order and say which day comes before, after and in-between. I can name the seasons and describe the features of these. I can name some months of the year. I can explain the relationship between the minutes hand and hours hand on a clock. I can read analogue and digital o'clock times. I can use language such as before, after, o'clock, hour hand and minute hand. I can draw o'clock times on digital clocks and analogue clocks. I can match analogue and digital times. 	<ul style="list-style-type: none"> I can use the language wide and narrow. I can measure length using non-standard units, eg. Hand spans, footsteps, string, paper clips. I can estimate measure in length, weight and volume activities (e.g. how many cubes is the same as the length of a pencil). I can use vocabulary to compare, describe and order objects according to length, tallest to shortest, longest to shortest. I can use vocabulary to compare, describe and order objects according to weight, heaviest to lightest. I can measure weight in non-standard units using balance scales eg. one apple =10 cubes, 2 cups of sand. I can describe volume using non-standard unit, eg. Sand, water, cups. -"It takes 2 cups to fill the bottle." I can use vocabulary to compare, describe and order objects according to volume/capacity, (eg, more or less full, and estimate and test half full). I can explore and can make choices about how I measure, explaining my choice. 	<ul style="list-style-type: none"> I can identify and describe simple patterns around me and in different environments. I can talk about patterns I can see or have made in my own words, using appropriate vocabulary. I can make a sound or movement pattern. I can copy patterns using 2 set criteria e.g. shape and colour. I can continue a simple pattern – colour, shape, picture, number (within 30). I can create and explain my own repeating pattern and discuss the rule e.g. what is the pattern?
National Benchmarks	<ul style="list-style-type: none"> Links daily routines and personal events to time sequences. Names the days of the week in sequence, knows the months of the year and talks about features of the four seasons in relevant contexts. Recognises, talks about, and, where appropriate, engages with everyday devices used to measure or display time, including clocks, calendars, sand timers and visual timetables. Reads analogue and digital o'clock times (12 hour only) and represents this on a digital display or clock face. Uses appropriate language when discussing time, for example, before, after, o'clock, half past, hour hand and minute hand. 	<ul style="list-style-type: none"> Shares relevant experiences in which measurements of lengths, heights, mass and capacities are used, for example, in baking. Describes common objects using appropriate measurement language, including tall, heavy and empty. Compares and describes lengths, heights, mass and capacities using everyday language, including longer, shorter, taller, heavier, lighter, more and less. Estimates, then measures, the length, height, mass and capacity of familiar objects using a range of appropriate non-standard units. 	<ul style="list-style-type: none"> Copies, continues and creates simple patterns involving objects, shapes and numbers. Explores, recognises and continues simple number patterns. Finds missing numbers on a number line within the range 0 - 20.

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Experiences and Outcomes	2D Shape and 3D Objects	Angle, Symmetry and Transformation	Data and Analysis
On track in the nursery	<p>I enjoy investigating objects and shapes and can sort, describe and be creative with them. MTH 0-16a</p> <ul style="list-style-type: none"> I can recognise 2D shapes, such as, square, rectangle, triangle, circle. I can find and identify shapes in my environment. I can describe 2D shapes, using the language such as, straight, round, flat, curved. I can talk about what shapes can be made when I print or match with 3D objects. I can explore 3D objects through play. 	<p>In movement, games, and using technology I can use simple directions and describe positions. MTH 0-17a</p> <p>I have had fun creating a range of symmetrical pictures and patterns using a range of media. MTH 0-19a</p> <ul style="list-style-type: none"> I can follow positional language: in front, behind, under, over, beside, in, out, on top of, in between and next to. I can follow directional language: forwards, backwards, up, down, first, second... I can give and follow a simple direction during a game. I can apply knowledge of direction to use a variety of technology (e.g. programmable toys). I can explore of symmetrical shapes and objects in my environment. I can create and describe symmetrical pictures, patterns and images using a variety of materials. I can identify a reflection or mirror image. 	<p>I can collect objects and ask questions to gather information, organising and displaying my findings in different ways. MNU 0-20a</p> <p>I can match objects, and sort using my own and others' criteria, sharing my ideas with others. MNU 0-20b</p> <p>I can use the signs and charts around me for information, helping me plan and make choices and decisions in my daily life. MNU 0-20c</p> <ul style="list-style-type: none"> I can recognise my own snack/cloakroom label. I can follow visual timetables. I can use nursery signs and charts to show my choices. I can match and sort using my own and others criteria and say why. I can ask simple questions to gather information I need e.g. "What is your favourite food?" I can organise my findings by mark making. I can organise and display information in a variety of ways.
On track in P1	<ul style="list-style-type: none"> I can match and sort a range of 2D shapes using 1 or more criteria and explain my choices. I can recognise 3D objects, such as, cube, cuboid, sphere, cylinder, pyramid, cone I can investigate 3D objects to see if they can stack/ roll /slide. I can describe 3D objects by comparing them to everyday objects; e.g ball is a sphere, etc. I can talk about the properties of 3D objects in the world around me during my play. I can design and create using a range of 2D shapes and 3D objects. 	<ul style="list-style-type: none"> I can follow and give instructions using positional language in front, behind, under, over, beside, in, out, on top of, in between and next to. I can follow and give instructions using directional language: forwards, backwards, up, down, first, second... left and right. I can recognise and use symbols for direction e.g. ←, ↑, →, ↓ I can apply knowledge of direction and movement in a problem solving context (e.g. using programmable toys, electronic games and remote controls) I can design and create symmetrical shapes and pictures by folding, cutting and printing. I can complete simple pictures and patterns to make them symmetrical. I can use the language reflection, mirror image and line of symmetry. 	<ul style="list-style-type: none"> I can independently use classroom signs and charts to make choices throughout the day. I can independently match and sort and justify my criteria e.g. by colour, shape, size, type. I can create and ask relevant questions to gather information I need. I can organise my findings by counting and using pre- tally marks IIIIII I can contribute to and complete information for display e.g. concrete objects, pictograms, tables, bar charts etc. I can identify and interpret information from data.
National Benchmarks	<ul style="list-style-type: none"> Recognises, describes and sorts common 2D shapes and 3D objects according to various criteria, for example, straight, round, flat and curved. 	<ul style="list-style-type: none"> Understands and correctly uses the language of position and direction to solve simple problems in movement games and technology, for example, in front, behind, above, below, left, right, forwards and backwards. Identifies, describes and creates symmetrical pictures with at least one line of symmetry. 	<ul style="list-style-type: none"> Asks simple questions to collect data for a specific purpose. Collects and organises objects for a specific purpose. Applies counting skills to ask and answer questions, make relevant choices and decisions based on the data. Contributes to concrete or pictorial displays where one object or drawing represents one data value, using digital technologies as appropriate. Uses knowledge of colour, shape, size and other properties to match and sort items in a variety of different ways and communicates the process and justifies choice of criteria. Interprets simple graphs, charts and signs and demonstrates how they support planning, choices and decision making in familiar situations.

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	<p>Money</p> <p>I am developing my awareness of how money is used and can recognise and use a range of coins. MNU 0-09a</p>		
<p>On track in the nursery</p>	<ul style="list-style-type: none"> • I can say what money is used for. • I can use money in role play. • I can sort coins into shape and colour. • I can identify numerals to 10 on coins. 		
<p>On track in P1</p>	<ul style="list-style-type: none"> • I can respond and begin to use the language of money: how much?, change, cost and price. • I can identify all coins to £2. • I can order all coins to £2. • I can use coins to make amounts in different ways up to 10p. • I can recognise the signs £ and p. • I can use a variety of coins to pay for items up to 10p. • I can give change from 5p. • I can solve money problems within 10 e.g. I need 10p and I have _p, how much more do I need? 		
<p>National Benchmarks</p>	<ul style="list-style-type: none"> • Identifies all coins to £2. • Applies addition and subtraction skills and uses 1p, 2p, 5p and 10p coins to pay the exact value for items to 10p. 		