



The Trent-Rylands Federation



Vertical progression – Mathematics – Number & Numerical Patterns - Maths overview

ELG Number

- Have a deep understanding of number to 10, including the composition of each number
- Subitise (recognise quantities without counting) up to 5
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts

Numerical Patterns

- Verbally count beyond 20, recognising the pattern of the counting system
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

Focus	Place Value: Counting	Place Value: Represent	Place Value: Use & compare	Composition of numbers	Addition & Subtraction: Recall, represent, use	Addition & Subtraction: Calculations	Addition & Subtraction: Solve problems	Foundations of multiplication and division	Number patterns
F1	<ul style="list-style-type: none"> • Rote count to numbers past 5 • Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5 • Counts by moving and rearranging the objects. • Knows that the last number reached when counting a small set of objects tells you how many there are. • Uses some number names and number language within play, and may show fascination with large numbers 	<ul style="list-style-type: none"> • Begin to recognise numerals 0 to 10 • Subitises one, two and three objects (without counting) • show finger numbers up to 5. • Links numerals with amounts up to 5 and maybe beyond • Experiment with their own symbols and marks as well as numerals 	<ul style="list-style-type: none"> • Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! 	<ul style="list-style-type: none"> • Able to subitise to 3 quickly without counting numbers individually. • Be able to represent numbers to 4 using different combinations of numbers. 	<ul style="list-style-type: none"> • Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle) • Explores using a range of their own marks and signs to which they ascribe mathematical meanings 	<ul style="list-style-type: none"> • Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers • Beginning to recognise that each counting number is one more than the one before 	<ul style="list-style-type: none"> • Beginning to use understanding of number to solve practical problems in play and meaningful activities • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same • Solve real world problems with m=numbers up to 5. 	<ul style="list-style-type: none"> • Groups and sorts items into pairs or twos. 	<ul style="list-style-type: none"> • Count in simple patterns 1, 2- 1, 2- • Sing number songs that involve counting and patterns.
F2	<ul style="list-style-type: none"> • Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 • Counts objects, actions and sounds. • Counts out up to 10 objects from a larger group • verbally count beyond 20, following the pattern of the number system. 	<ul style="list-style-type: none"> • Engages in subitising numbers to four and maybe five • Increasingly confident at putting numerals in order 0 to 10 (ordinality) • Matches the numeral with a group of items to show how many there are (up to 10) 	<ul style="list-style-type: none"> • Uses number names and symbols when comparing numbers, showing interest in large numbers • Estimates of numbers of things, showing understanding of relative size 	<ul style="list-style-type: none"> • Be able to subitise to 5. • Shows awareness that numbers up to 10 are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects 	<ul style="list-style-type: none"> • Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and + or - • To recall number bonds to 5 quickly and some number bonds to 10 – addition and subtraction 	<ul style="list-style-type: none"> • In practical activities, adds one and subtracts one with numbers to 10 • In practical activities be able to add and subtract small amounts totalling up to 10. 	<ul style="list-style-type: none"> • Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three 	<ul style="list-style-type: none"> • Can group items quickly in to sets of 2 and 3. • Can share amounts between 2 people fairly. 	<ul style="list-style-type: none"> • Explore and represent patterns within numbers up to 10, including evens and odds, double facts.



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Trent Vale Infant and Nursery School *and* Beeston Rylands Junior School

ELG				
None for Shape space and measures				
Focus	Spatial Awareness	Shape	Pattern	Measures
F2	<ul style="list-style-type: none"> • Responds to and uses language of position and direction • Predicts, moves and rotates objects to fit the space or create the shape they would like 	<ul style="list-style-type: none"> • Chooses items based on their shape which are appropriate for the child's purpose • Responds to both informal language and common shape names • Shows awareness of shape similarities and differences between objects • Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes • Attempts to create arches and enclosures when building, using trial and improvement to select blocks 	<ul style="list-style-type: none"> • Creates their own spatial patterns showing some organisation or regularity • Explores and adds to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, stone (ABC) • Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next 	<ul style="list-style-type: none"> • In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items • Recalls a sequence of events in everyday life and stories
F2	<ul style="list-style-type: none"> • Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints • Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) • May enjoy making simple maps of familiar and imaginative environments, with landmarks 	<ul style="list-style-type: none"> • Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes • Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes • Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build • Recognise & name common 2D shapes • Recognise & name common 3D shapes 	<ul style="list-style-type: none"> • Spots patterns in the environment, beginning to identify the pattern "rule" • Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat 	<ul style="list-style-type: none"> • Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy • Becomes familiar with measuring tools in everyday experiences and play • Is increasingly able to order and sequence events using everyday language related to time • Beginning to experience measuring time with timers and calendars