THURGOLAND
CHURCH OF ENGLAND PRIMARY SCHOOL
LEARNING TOGETHER IN FAITH & JOY

EYFS – Discrete Mathematical Knowledge

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
I know how to subitise 1. I know how to subitise 2. I know how to subitise 3. I know how to recite numbers 1,2,3,4,5 I know all numbers are made up of 1's. I know the composition of 3 (3-0, 1-2, 2-1, 0-3) I know the composition of 4 (0-4, 1-3, 2-2, 3-1, 4-0) I know how to say one number for each item in order: 1,2,3,4,5. (1:1 counting) I know the link between numerals and amounts: for example, showing the right number of objects to	I know how to recite numbers past 5. I know the composition of 3 (3-0, 1-2, 2-1, 0-3) I know the composition of 4 (0-4, 1-3, 2-2, 3-1, 4-0) I know the composition of the number 5 (0-5, 1-4, 2-3, 3-2, 4-1, 5-0) I know how to compare using more than, less than. I know equal means the same. I know a whole is altogether. I know part is only a part of the whole.	I know how to subitise 4. I know how to subitise 5. I know the die patterns for the number 4. I know the die patterns for number 5. I know how to match numerals to quantities within 5. I know how to count with ordinality. I know each number is one more than the previous number within 10. I know 6 is 5 and 1 more (a bit). I know 7 is 5 and 2 more (a bit).	I know how to order numbers by 1 more than the other. I know how to order numbers to 8. I know how to use less than to compare numbers smaller. I know some numbers can be doubled (2 equal parts). I know odd numbers end in 1, 3, 5, 7, 9 I know even numbers end in 2, 4, 6, 8, 0. I know a sphere is a 3D shape. I know a cube is a 3D shape.	I know how to count things that cannot be seen. I know how to subitise to 5. I know how to count actions. I know how to count sounds. I know the 'one more than/one less than' relationship between consecutive numbers. I know how to subitise 6. I know the composition of numbers more than 5 to be 5 and a bit. I know the composition of the number 10.	I know my number bonds to 5. I can automatically recall number bonds for numbers 0–5 and some to 10. *I know some double facts.* I know the composition of all numbers up to 10. I know how to compare length using taller and shorter. I know how to compare weight. I know how to compare capacity. I know how to select, rotate and manipulate shapes so that I develop my spatial reasoning skills.

match the numeral, up to 5. I know how to show 'finger numbers' up to 5. I know how to compare sets using looking. I know how to compare using language 'more than/fewer than'. I know what a circle is. I know what a triangle is.	I know how to count objects. I know how to match numerals to quantities within 10. I know how to count verbally beyond 20. I know how to compare using heavy and lighter. I know how to compare size using taller and shorter. I know how to make a pattern. I know a rectangle has 4 sides. I know a square has 4 sides.	I know how to make sets equal by counting.	I know a cuboid is a 3D shape. I know 3D shapes in everyday objects. I know how to rotate a shape. I know how to make a 2D shape. I know 2D shapes can be found in 3D shapes. I know the link between the number symbol (numeral) with its cardinal number value. I know which shapes to use appropriately: flat surfaces for building, a triangular prism for a roof, etc. I know how to combine shapes to make new ones – an arch, a bigger triangle, etc.	*I know the composition of each number 1-10.* I know my number bonds to 10. I know to compare mass using heavier and lighter. I know a balanced scale means they weigh the same. I know to use full and empty to describe capacity. I know how to make comparisons between objects relating to size. I know how to make comparisons between objects relating to length. I know how to make comparisons between objects relating to weight. I know how to make comparisons between objects relating to capacity.	I know how to compose and decompose shapes so that I recognise a shape can have other shapes within it, just as numbers can. I know how to continue, copy and create repeating patterns. I know how to count beyond ten.

Year 1 – Discrete Mathematical Knowledge

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
I know how to count forwards and backwards in ones to 10 starting from any number. I know how to find 1 more and 1 less of a number up to 10. I know number pairs to 10. I know numbers bonds to 10. I know how to use more than and less than so I can compare numbers to up 10. I know how to read numbers up to 10.	I know the 2Dshapes: rectangle, square, circle and triangle. I know the 3D shapes: cube, cuboid, pyramids and spheres so I can say their properties (number of faces, edges and vertices). I know how to count forwards and backwards in ones to 20 starting from any number. I know 1 more and 1 less of any number up to 20. I know how to use more than and less than so I can compare numbers up to 20. I know how read numbers up to 20.	I know number bonds within 20. I know number pairs to 20. I know how to count forwards and backwards to 50 in ones starting from any number. I know 1 more and 1 less of any number up to 50. I know how to count in multiples of 2. I know how to count in multiples of 5. I know how to count in multiples of 10. I know how to read numbers up to 50. I know odd numbers up to 20. I know even numbers up to 20.	I know 1 more and 1 less for numbers up to 50. I know how to count in multiples of 2. I know how to count in multiples of 5. I know how to count in multiples of 10. I know to measure larger objects in m. I know to measure smaller objects in cm. I know to weigh larger objects in KG. I know to weight smaller objects in g. I know to measure larger amounts of fluid in litres. I know to measure smaller amounts of fluid in ml.	I know how to count in multiples of 2. I know how to count in multiples of 5. I know how to count in multiples of 10. I know the doubles of number up to 10. I know the half of even numbers up to 10. I know a half is 2 equal parts of a whole, shape or quantity. I know a quarter is four equal parts of a whole, shape or quantity. I know 4 quarter turns make a whole.	I know how to count forwards and backwards in ones to 100, starting from any number. I know 1 more and 1 less of any number up to 100. I know how to read numbers to 100. I know the worth of coins in pence or pound. I know there are 7 days in a week. I know there are 4 weeks in a month. I know there are 12 months in a year. I know time is measured in seconds, minutes or hours.