Overdale Curriculum – Maths – Multiplication and Division

Intent

- To develop children's curiosity in Maths and to foster a sense of enjoyment and love of learning about the subject.
- To be aware of Maths in the everyday world.
- To be equipped with the tools and strategies needed to solve Mathematical problems.
- To become confident and competent Mathmeticians.

F1 F2	**Exposure to the following vocabulary and concepts practically (cross-curricular and see Number curriculum):** Groups (doubles) Sharing Equal as being the 'same as' or the 'same'

Year 1	Curriculum	Knowledge	Skills	Vocabulary
	Multiplication and Division Facts • Count in multiples of twos, fives and tens. **Problem solving** • Solve one-step problems involving multiplication and division by calculating the answer using concrete objects, pictoral representations and arrays with the support of the teacher.	**Multiplication and Division Facts** • To know number names. • To know how to count given objects/pictures in twos, fives and tens. • To know how to use concrete objects to support counting in multiples of twos, fives and tens. • To know that counting in twos, fives and tens is a quicker way of counting. • To know what an array is and how this shows the number pattern. • To know that not all numbers are chanted, only those in the pattern. • To know that some numbers are missed out because you are jumping to count either the next two, five or ten. • To know that rote counting in twos, fives and tens can be referred to counting in a pattern. • To recognise that the numbers in the twos pattern always end with either 0, 2, 4, 8. • To recognise that the numbers in the fives pattern end in 0 or 5. • To recognise that the numbers in the tens pattern end with 0. • To know how to group amounts and identify groups. • To know how to share equally and amount. **Problem solving** • To know that they can use their number pattern knowledge to solve problems. • To know that they can apply their knowledge of using concrete obejcts to solve problems. • To know how to interpret and make an array.	**Multiplication and Division Facts** • To be able to chant in 2, 5 and 10s. • To be able to count groups of objects in 2, 5 and 10 both concrete and pictoral. • To be able to recognise that the numbers in the twos pattern always end with either 0, 2, 4, 8. • To be able to recognise that the numbers in the fives pattern end in 0 or 5. • To be able to recognise that the numbers in the tens pattern end with 0. • To be able to count groups of amounts (twos, fives and tens). • To be able to make equal groups. • To be able to share an amount into groups equally. **Problem solving** • To be able to use their number pattern knowledge to solve simple problems. • To be able to use concrete and pictorial resources and representations to support them to solve problems with the support of a teacher. • To be able to explain reasoning about an answer to a problem. (I know because..)	Number, numeral, number names, count, counting, number pattern, twos, fives, tens, chant, array, groups, sharing, equal., multiplication, division.

		• To know how to interpret and use pictoral representations to support problem solving.		
Year 2	Curriculum	Knowledge	Skills	Vocabulary
	Multiplication and Division Facts • Count in steps of twos, fives and tens from 0 and in tens from any number forwards and backwards. • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. **Mental calculation** • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. **Written calculation** • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x) division (÷) and equals (=) signs. **Problem solving** • Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods, and multiplication and division facts including problems in contexts.	**Multiplication and Division Facts** • To know number names. • To know how to count given objects/pictures in twos, fives and tens. • To know how to use concrete objects to support counting in multiples of twos, fives and tens. • To know that counting in twos, fives and tens is a quicker way of counting. • To know what an array is and how this shows the number pattern. • To know that not all numbers are chanted, only those in the pattern. • To know that some numbers are missed out because you are jumping to count either the next two, five or ten. • To know that rote counting in twos, fives and tens can be referred to counting in a pattern. • To know how to count in tens from any given number, forwards and backwards. • To know how to count in twos and fives from 0 forwards and backwards. • To recognise that the numbers in the twos pattern always end with either 0, 2, 4, 8. • To recognise that the numbers in the fives pattern end in 0 or 5. • To recognise that the numbers in the tens pattern end with 0. • To know how to recall multiplication and division facts for 2, 5 and 10. • To know how to use multiplication and division facts for 2, 5 and 10. • To know what odd and even numbers are. • To recognise odd and even numbers. **Mental calculation** • To know what commutative means. • To know that multiplication is commutative and can be done in any order. • To know that commutativity can be used as an efficient strategy to solve multiplication problems and calculations. • To know that division is not commutative. **Written calculation**	**Multiplication and Division Facts** • To be able to chant in 2, 5 and 10s forwards and backwards. • To be able to chant in tens from any given number forwards and backwards. • To be able to count groups of objects in 2, 5 and 10 both concrete and pictoral. • To be able to recognise that the numbers in the twos pattern always end with either 0, 2, 4, 8. • To be able to recognise that the numbers in the fives pattern end in 0 or 5. • To be able to recognise that the numbers in the tens pattern end with 0. • To be able to recall multiplication and division facts for the 2, 5 and 10 times tables. • To be able to identify and recall odd and even numbers. **Mental calculation** • To be able to show and use commutativity in multiplication. **Written calculation** • To be able to record written multiplication and division calculations using the correct signs. • To be able to show a written method of solving multiplication and division calculations (jottings, arrays). **Problem solving** • To be able to use their number pattern and times table knowledge to solve problems. • To be able to use concrete and pictorial resources and representations to support them to solve problems independently. • To be able to explain reasoning about an answer to a problem. (I know because..) • To know how to use jottings (groups, sharing, arrays) to solve problems.	Number, numeral, number names, count, counting, number pattern, twos, fives, tens, chant, array, groups, shared between, equal, division, multiplication, divided by, times, inverse, relationship, commutative, commutativity.

		• *To know what a written calculation looks like in multiplication and division.* • *To know which signs to use (x) and (÷).* • *To know the vocabulary linking to the signs (times, divide, divided by).* • *To know that times also means groups of or lots of.* • *To know that divided by also means shared between.* ***<u>Problem solving</u>*** • *To know that they can use their number pattern and times table knowledge to solve problems.* • *To know how to use repeated addition.* • *To know and use the inverse to solve problems.* • *To know that they can apply their knowledge of using concrete obejcts and jottings to solve problems.* • *To know how to interpret, make and use an array.* • *To know how to interpret and use pictoral representations to support problem solving.*	• *To know how to interpret a problem to establish which method they need to use.* • *To know how to use the inverse relationship between multiplication and division to solve problems.*	