Multiplicative reasoning 2.7	Length of unit: **2 weeks**	Week beg:	Year: 2	Teacher:

Success criteria

Pupils can represent and explain how to use their multiplication facts to solve division problems. They can represent and solve multiplication and division problems in different contexts.

Prior Learning:

Check that children can already

- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher
- recognise and know the value of different denominations of coins and notes
- recognise, find and name a half as one of two equal parts of an object, shape or quantity
- recognise, find and name a quarter as one of four equal parts of an object, shape or quantity
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

Resources

Maths vocabulary book

Using and Applying in every maths lesson

Assessment through guided maths

Think Maths!

Pitch and Expectations Y2

Models and Images

Overcoming Barriers to learning Level 1 to 2/Level 2 to 3

Securing Level 1/Level 2/Level 3

Guidance

Pupils are introduced to the multiplication tables. They practice to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication to place value, and the 5 multiplication to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.

Pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. They begin to relate these to fractions and measures (for example 40 ÷ 2 = 20, 20 is half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example 4 x 5 = 20 and 20 ÷ 5 = 4).

Learning objectives	**Pupil outcomes:**
Pupils should be taught to: Number and place value ● count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward Multiplication and division ● recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers ● calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs ● show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot ● solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts Measurement ● recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value ● find different combinations of coins to equal the same amount of money ● tell and write the time to five minutes, including quarter past / to the hour and draw the hands on a clock face to show these times ● know the number of minutes in an hour and the number of hours in a day.	I can show and explain how knowing 5 x 10 = 50 helps me to solve the problem 'how many tens will we need for 50 children if there are five children in each tent?' and record a related number sentence. I can show and explain how I know I can use 1ps or 2ps or 5ps or 10ps to make 30p and record matching number sentences, for example 5p x 6 = 30p.