



Mathematics Medium Term Plan

Year 3 Autumn Term Unit 3 Multiplication and Division

Focus

Multiplication and Division

Time

5 weeks



R2P: Check 2MD-1, Check 2MD-2, 3NF-2, 3MD-1

NC:

Count from 0 in multiples of 4, 8, 50 and 100.

Recall and use multiplication and division facts for the 3, 4 and 8x tables.

Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two digit numbers times one digit numbers using mental and progressing to formal written methods.

Solve problems, including missing number problems, including multiplication and division, including positive integer scaling problems and correspondence problems which n objects are connected to m objects.

Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another can not. by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Concept Sequence

Multiplication - equal Groups – recognise, make and add, symbol. Different representations.

Using arrays. Explore commutativity. Lots of/groups of.

Multiples of 2 – link counting in 2s to 2xtable. Even and Odd.

Multiples of 5 and 10 – link counting to 10x/5xtable. Know patterns for multiples.

Sharing and Grouping – divide by 2, 5 and 10. Bar Models.

Multiply by 3 – use equal groups with concrete and pictorial methods to solve problems. Repeated addition. Flexible partitioning: $7 \times 3 = 5 \times 3 + 2 \times 3$.

Divide by 3 – sharing into three equal groups and grouping in threes. Use concrete and pictorial representations and inverse.

3x table – apply knowledge to different contexts. Fact Families. Use different strategies - comutativity, partition, double, halving, inverse.

Multiply by 4 – link to doubling and doubling again, repeated addition and counting in 4s. Use counters, cubes, bar models, etc. Arrays.

Divide by 4 – sharing into 4 equal groups and grouping in fours. Links to halve and halve. Use concrete and pictorial representations and inverse.

4x table – varied fluency problems, and reasoning. Use different strategies - comutativity, partition, double, halving, inverse.

Multiply by 8 – link to 4x table, repeated addition, equal groups. Use 8 as multiplier and multiplicand.

Divide by 8 – sharing and grouping. Use different representations and inverse.

8x table – use known facts from other tables and the distributive law to calculate unknown facts. Links with 2x and 4x tables.

2/4/8x table. Make connections.

Planning Links

White Rose, Power Maths, Maths No Problem Text Books, Aspire Maths

White Rose Scheme of Work:

<https://assets.whiterosemaths.com/new-schemes/Y3%20Autumn%20Block%203%20SOL%20Multiplication%20and%20division%20A.pdf>

NCETM Teacher Guide and Representations:

<https://www.ncetm.org.uk/classroom-resources/primm-2-07-times-tables-2-4-and-8-and-the-relationship-between-them/>
<https://www.ncetm.org.uk/classroom-resources/primm-2-08-times-tables-3-6-and-9-and-the-relationship-between-them/>

Existing Vocabulary

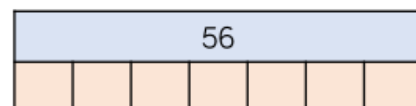
Multiplication, Multiply, Multiplied by Multiple, Product, Times
 Division, Dividing, Grouping, Sharing
 Equal groups of
 Group in pairs, fives...
 Array, X, I like it so much I want X times
 Doubling, Halving
 Number patterns Groups of
 Once, twice, three.... times
 Repeated addition, Array, row, column
 Multiplication table, Multiplication fact

Times Tables

3NF-2

4x table – multiples, missing numbers, division, fractions

Count in 8s



Resources

Objects (counters, cubes), 100 Square, Number Lines, Counting stick
 Gordons Maths Games, Mathletics, TTRockstars BBC Super Movers <https://www.bbc.co.uk/teach/superheroes/ks2-collection/zr4ky9q>
 Working Wall – stem sentences