Maths MTP Planning: Time (Team = Hayley BL, Julianne B, Marc T)

Week 1: Place Value	**Week 2:** Multiplication *Practical fluency/Reasoning*	**Week 3:** Division *Practical fluency/Reasoning*
Lower: Partitioning: 7 is 3 and 4, and also 2 and 5 (number sense). Number bonds 10. **Middle:** Multiplying/Dividing by 0, 1, 10, 100. Number bonds 10/20/50. **Higher:** Multiplying/Dividing by 0, 1, 10, 100, 1,000, 10,000. Number bonds to 100.	**Lower:** Counting before attempting group counting. Lots of practical resources (base ten, repeated addition, counting pairs, pairs of socks, KitKat). Real life and meaningful resources such as food. **Middle:** Introduction to symbols, legs of an animal, counting 2p's/5p's/10p's lots of practical shopping activities and pictorial representations of what the groups are worth. Counting forwards and backwards in groups of 2,5,10. Step counting. **Higher:** Multiplication partitioning tables start with this method (if struggling other methods include: Column multiplication). Multiplication number problems. Recipes to cook for 6 or 12 if you have a recipe for 4 people etc.	**Lower:** Sharing toys between two people (practical with food, real life learning and counters). Play acting picnics with the food and toys ask reasoning questions, how do we share? **Middle:** Real life learning with food and practical resources. Play acting picnics with the food and toys ask reasoning questions, how do we share? Introduction to symbols of division. Practical to start with then simple division number statements to answer. Dividing shapes – introduction to fractions. **Higher:** Fractions and division within the 12x tables. Starting practical and hands on and then applying this to abstract questions.

Curriculum Grid:

Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers; derived division facts to 3 digits (e.g. 600 / 3 = 200 can be derived from 2 x 3 = 6)

Multiply whole numbers and those involving decimals by 10 and

Divide whole numbers and those involving decimals by 10 and 1

Demonstrate an understanding of the composition of numbers to ability to recall number bonds to and within 10 and related subt 9 and 9 - 7 = 2) using visual representation

Language: *number, number bonds.*

Curriculum Grid:

Solve problems involving multiplication, including scaling by simple fractions (e.g. There is 500g in a bag of sugar. How much sugar is in one and a half bags?)

Solve problems involving division, including problems involving simple rates (e.g. I bought three identical cakes for £6. How much did one cake cost?)

Solve problems involving multiplication and division, using concrete objects, arrays, visual representations including the bar model, mental methods, and multiplication and division facts

Solve one-step problems involving multiplication, calculating the answer by making equal groups using concrete objects and pictorial representations

Solve one-step problems involving division by sharing, calculating the answer by using concrete objects and pictorial representations

Language: *multiplication, times, groups of, lots of, multiply, equals*

Curriculum Grid:

Derive division facts from the 3, 4 and 8 multiplication tables
Links the 2x table to 'doubling' and derived division facts to 'halving'
Divide numbers up to three digits by a one-digit or two-digit number, using chunking, and interpret remainders appropriately for the context
Understands division as 'grouping', e.g. for 6/2 counting in twos and representing visually, e.g. using number lines
Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
Represents multiplication and division using arrays, showing that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
Understands multiplication as 'repeated addition', e.g. 3x5 as 5+5+5, calculating answers by step counting and representing calculations visually, e.g. using number lines
Write and calculate division statements, including for two-digit numbers times by one-digit numbers, using visual representations, e.g. a number line, including remainders

Language: *Sharing, dividing, division, sets/groups of. Starters match the word to activity, equals.*

Week 4: Multiplication & Division	**Week 5:** Language Word Problems	**Week 6:** Multiplication & Division word problems and formative assessments
Lower: Repetition- activities from week 2/3 to show the inverse. Share and then collect back – see the visual representation. **Middle:** Repetition- activities from week 2/3 to show the inverse. Share and then collect back – see the visual representation and the number statements next to it. **Higher:** Repetition- activities from week 2/3 to show the inverse. Share and then collect back – see the visual representation and the number statements next to it.	**Lower:** abstract – introduction to the symbols. Recap on what they mean and start to look at divide by 2 (intro to more abstract). Language of word problems and HOW to solve a word problem (very basic – 1 step: How many legs of this giraffe, how many on 2 etc.) **Middle:** abstract understanding and solving number statements. Knowing that symbols **times and add** are getting bigger and subtraction and division is **reducing**. **Higher:** Same as above just higher numbers	**Lower:** recap learning (Kahoot!) **Middle:** 'Groups' of in bags of. There are 10 carrots in the bag, we need 27: How many bags do we need? Formative assessments (Kahoot!) **Higher:** Attempt Entry Levels to match up with Upper School (especially for Year 9's).

Maths MTP Planning: Time (Team = Hayley BL, Julianne B, Marc T)

Curriculum Grid:	*Curriculum Grid:*	*Curriculum Grid:*
Use inverses to show whether a multiplication or division numb incorrect *Multiply numbers up to three digits by a one- or two-digit num.* *Divide numbers up to three digits by a one-digit or two-digit nu and interpret remainders appropriately for the context* *Multiply numbers mentally drawing upon known facts* *Divide numbers mentally drawing upon known facts* ***Language:*** *inverse for checking their number sentences.*	*Pupils can use compensation as a multiplication strategy, e.g. for 9 x 12, they work out that 10x12=120, and take 12 away to find the answer* *Solve problems involving multiplying and division, including integer scaling problems* *Solve problems involving multiplying and dividing, including using the distributive law to multiply two digit numbers by one digit* *Solve problems involving multiplication and division, including positive integer scaling problems (e.g. Tim had 5 stickers. Tom had three times as many stickers. How many stickers did Tom have?)* *Solve problems involving multiplication and division, using concrete objects, arrays, visual representations including the bar model, mental methods, and multiplication and division facts* *Solve one-step problems involving multiplication, calculating the answer by making equal groups using concrete objects and pictorial representations* *Solve one-step problems involving division by sharing, calculating the answer by using concrete objects and pictorial representations* ***Language:*** *Getting bigger, getting smaller, divide, share, multiply, altogether, equals, groups of.*	*Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs* ***Language:*** *inverse for checking their number sentences.*