Cloudside Academy
MTP Year 5 Autumn 1 2019-20

Resources	**Mastery: (where to find some resources)**	**Links to prior learning/ objectives**
Base10, place value charts, number lines that go below zero, rectangles,	• Teaching for Mastery • White Rose • Mastery maths stickers • Nrich (curriculum mapping)	Children will have used Base10 to develop their understanding of place value. Children will have learned about positive and negative numbers. Children will have previously calculated the perimeter of rectilinear shapes. Children will have spent tome over previous years developing practical, written and mental strategies for a range of operations.

Dates Focus	**Objectives**	**Vocabulary**	**Barriers to ARE (misconceptions)**
Week 1 9.9.19	• Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • Find 10 or 100 more or less than a given number. Add and subtract numbers mentally with increasingly large numbers	Number, digit, place value, ones, tens, hundreds, thousands, ten thousands, hundred thousands, millions, exchange, equal, round, nearest, more than, less than, add, subtract, powers of 10	Children might not understand place value. Children might not know how to round accurately. Children may not recognise that when adding or subtracting a multiple of 10 or 100 only that place value digit changes unless it bridges ten. Children may struggle to read and write numbers with up to 7 digits.
Week 2 16.9.19	• Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	Equal to, more than, greater than, less than, fewer than, negative numbers, decimal numbers, powers of 10	Children might not understand place value. Children might not understand the order of negative numbers (the might think that -4 is greater than -2). Children might not understand the place value of decimals and the different amounts that each represents. Children might not have a deep understanding of <, > and = signs.

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Week 3 23.9.19	• Solve number problems and practical problems involving these ideas. • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	zero, Roman numerals	Children might not relate the symbols in Roman numerals with numbers used today. Children may struggle to interpret Roman Numerals especially for longer numbers e.g. MDVXXIV
Week 4 30.9.19	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Place value, formal written method, columns, exchange, operation, Add, addition, plus, altogether, sum, subtract, take away, minus, difference between, Calculations, rounding, place value	Children might not be confident in basic addition/ subtraction prior to the formal written methods (use concrete objects – Base10- to support). Children might not line up the columns accurately, leading to errors. Children may struggle with the concept of exchanging. Children may forget to add any tens/ hundreds etc that are carried. Children might think that the only number to change is the place value they are rounding to (E.G Round 395 to the nearest hundred, they might put 495 as opposed to 400 – particularly if decimals numbers are involved) Children may struggle to round to the most efficient amount to gain a reasonable estimate.
Week 5 7.10.19	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Place value, formal written method, columns, exchange, operation, Add, addition, plus, altogether, sum, subtract, take away, minus, difference between, Calculations, rounding, place value	Children might not be confident in basic addition/ subtraction prior to the formal written methods (use concrete objects – Base10- to support). Children might not line up the columns accurately, leading to errors. Children may struggle with the concept of exchanging. Children may forget to add any tens/ hundreds etc that are carried. Children might think that the only number to change is the place value they are rounding to

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Week 6 14.10.19	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. (Use this as an opportunity to estimate first, using their rounding knowledge from the previous week).	Estimate, compare, greater than, less than, measures, units, money, Sterling, pounds, pence, place value, exchange, explanation, reasoning	Children might not know how to estimate appropriately before calculating an answer. Children may struggle to identify what number operation they need to use. Children may struggle to read the word problems. Children may use the 'rucsac' method but gain nothing from it. Children might not use the correct vocabulary or specific detail in their explanations.
Week 7 21.10.19	Solve problems involving converting between units of time. Complete, read and interpret information in tables, including timetables.	Seconds, minutes, hours, units of time, intervals, interpret, read, timetables, convert	Understanding of the relationship between time facts. Applying their understanding of time to reading and interpreting timetables. Using base ten rather than a base 60 system- counting 100 minutes rather than 60 minutes in an hour when calculating difference between times. Calculation errors. Reading digital and 24-hour time. Understanding how to interpret a table- where to look for given information.