

Weeks	Key knowledge	Previous experience (NCETM Guidance) Support gaps in learning	Curriculum statement	NCETM links to PD materials to support subject knowledge and small steps Cross-curricular links
Weeks 1-2	<p>Calculation and arithmetic : Multiplication and division (continued)</p> <p>Apply tables knowledge in the context of place value eg $6 \times 7 = 42$ and 60×7 etc Understanding the relationships between the multiplication and division statements eg $6 \times 7 = 42$, $7 \times 6 = 42$ and $42 \div 7 = 6$ Facts and mental to written methods</p> <p>Mental strategies for partitioning for multiplication (96×6 could be 90×6 and 6×6)</p> <p>Mental strategies for rearranging for division ($96 \div 6$ could be partitioned into $60 \div 6$ and $36 \div 6$) distributive law</p> <p>Understanding multiplication as commutative</p> <p>Grid to short standard method</p> <p>Short division method backed up by models and images (refer to calculation on policy)</p>	<p>Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example: $30 \times 4 = 120$, $120 \div 4 = 30$</p> <p>Multiply two-digit numbers by 10, and divide three-digit multiples of 10 by 10.</p> <p>Understand the inverse relationship between multiplication and division.</p> <p>Write and use multiplication table facts with the factors presented in either order.</p> <p>Knows how to multiply/divide two-digit numbers by one-digit numbers using expanded methods of short multiplication and division.</p>	<p>To recall and use multiplication and division facts</p> <p>To write and calculate mathematical statements for multiplication and division, using facts and place value</p> <p>To recognise and use commutativity in mental calculations</p> <p>To use a formal written method for multiplication and division.</p> <p>To understand the effect of dividing a one- or two- digit number by 10 and 100</p> <p>To solve problems, including missing number problems, involving multiplication and division</p>	<p>Y4 2.10 linking multiplication and division</p> <p>TP1/2 multiplication facts can be derived from related known facts by partitioning one of the factors.</p> <p>TP 3 the distributive law can be used to derive multiplication facts beyond known times tables.</p> <p>2.11 11 and 12 times tables</p> <p>2:13 Calculation: multiplying or dividing by 10 or 100 https://www.ncetm.org.uk/resources/53537 2:14</p> <p>Multiplication: partitioning leading to short multiplication https://www.ncetm.org.uk/resources/53538 2:15</p> <p>Division: partitioning leading to short division https://www.ncetm.org.uk/resources/53539</p>
Weeks 3-5	<p>Fractions: comparing and ordering and fractions as numbers (refer to fractions policy)</p> <p>Understand the denominator as equal parts and the numerator as how many equals parts numerator</p>	<p>Knows unit and non-unit fractions as numbers on the number line and how to represent equivalence.</p> <p>Reason about the location of</p>	<p>Recognise and show, using diagrams, families of common equivalent fractions. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the</p>	<p>Y3</p> <p>3.2 unit fractions</p> <p>TP5 the greater the denominator, the smaller the fraction</p> <p>TP6 repeated addition of unit</p>

	<p>Understanding the whole and parts Variety of models used to understand the structure of fractions Developing understanding of denominator e.g the bigger the denominator the smaller the fraction</p>	<p>fractions less than 1 in the linear number system.</p> <p>Identify unit and non-unit fractions.</p> <p>Add and subtract fractions with the same denominator, within 1 whole, for example: $\frac{2}{5} + \frac{2}{5} = \frac{4}{5}$</p>	<p>answer is a whole number. Add and subtract fractions with the same denominator.</p>	<p>fractions 3.3 non-unit fractions 3.4 adding and subtracting within one whole TP 1 adding fractions with the same denominator TP 2 subtracting fractions with the same denominator TP 3 understand that addition and subtraction of fractions are the inverse of each other just as with whole numbers TP 4 to subtract from one whole, convert the whole to a fraction where the numerator and denominator are the same.</p>
<p>Weeks 6-9</p>	<p>Decimals Learn about tenths and hundredths. Be able to count, order and record the decimals in different ways. Begin to see equivalence between tenths and hundredths. Be able to compare and order the numbers. Understand how to continue linear number sequences. Round decimals to the nearest whole number. Link tenths and hundredths with dividing by 10 and 100. Understand 1/10 is read as 1 tenth and 0.1 is also read as 1 tenth. Know</p>	<p>Knows how to connect tenths to place value, decimal measures and to division by 10.</p> <p>Knows how to round whole numbers</p>	<p>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Recognise and write decimal equivalents of any number of tenths or hundredths. Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. Compare numbers with the same number of decimal places up to 2 decimal places. Round decimals with 1 decimal place to the nearest whole number. Recognise and write decimal equivalents</p>	<p>Y4 1.23 composition and calculation: tenths TP 1-6 1.24 composition and calculation: hundredths and thousandths TP 1-8</p>

	<p>that $1/10 = 0.1 = 1$ tenth. Have a good understanding of the base-10 number system. Be able to relate 1 tenth to 1 part out of 10 equal parts of 1. Know that there are ten 0.1 in 1. Know that 1 is 10 times as much as 0.1. Understand the role of zero as a placeholder. Be able to relate 1 hundredth to 1 part out of 100 equal parts of 1. Be able to relate 1 hundredth to $1/100$. Be able to relate 1 hundredth to 0.01. Relate that 1 hundredth = $1/100 = 0.01$. Know that there are ten 0.01 in 0.1. Know that 0.1 is 10 times as much as 0.01. Identify hundredths using decimals.</p>		<p>to $1/4, 1/2, 3/4$. Solve simple measure and money problems involving fractions and decimals to 2 decimal points</p>	
<p>Week 10-11</p>	<p>Money Count and record in pounds and pence. Count amounts of money to find the total. Write money in pounds using decimal notation Make links between tenths and hundredths and decimal notation for money. Compare amounts of money by looking at significant digits and by converting amounts from pounds to pence and vice versa. Round money to the nearest pound</p>	<p>Count in multiples of 2, 5 and 10. Understand unitising: eg unitise in tens: understand that 10 can be thought of as a single unit of 1 ten. Understand the £ and p symbol Finding equivalent amounts Use different coins to make the same amount.</p>	<p>To measure, compare and convert between units of measure To calculate amounts of money Calculate different measures, including money in pounds and pence Estimate, compare and calculate different measures, including money in pounds and pence. Add and subtract amounts of money to give change, using both pounds and pence in practical contexts</p>	<p>Read NCETM guidance 2.1 counting, unitising and coins to support subject knowledge. Y4 1.25 TP 1 one penny is one hundredth of one pound; conventions for expressing quantities of money – tenths and hundreds TP 2 equivalent calculation strategies for addition can be used to efficiently add commonly-used prices</p>

<p>and understand contexts in which this would be a useful skill to know. Estimate amounts and totals. Apply these skills to problem-solving situations, finding totals and calculating change. Visualise a money problem using a bar model and begin to explore unequal sharing in the context of money. Know the relative values of different coins. Know that $10 \times 10p = \text{£}1.00$. Understand the equivalence between 10p and $\text{£}0.1$. Record multiples of 10p as a fraction.</p>			<p>TP 3 working forwards/finding the difference strategy for finding change</p> <p>TP 4 column methods can be used to add/subtract money</p> <p>TP 5 finding change when purchasing multiple items</p>
<p style="text-align: center;">Week 12</p> <p>Opportunities to go richer and deeper – problem solving Close the gap Assessment</p>			