Mayflower FEDERATION

Mathematics Year 3 Spring Term

Block 1 Multiplication and Division B	
Step 1 Multiples of 10	Children learnt the 10 times-table in Year 2 and revisited multiples of 10 in the Autumn term. In this small step, they further develop their understanding of multiples of 10 by looking at greater multiples. Children reinforce their earlier work on place value and use a range of representations, such as ten frames, Gattegno charts and place value charts. They recognise that multiples of 10 end in a zero and use this fact to solve basic multiplication and division problems beyond the 10 times-table. Understanding multiples of 10 is crucial for the next step, when children explore multiplying by 20, 30 and so on. This is the foundation of multiplying other 2-digit numbers using the expanded method later in this block and for more formal methods in Year 4 and beyond.
Step 2 Related calculations	This small step builds on the previous step and children's existing knowledge of times-tables to explore calculations related to known facts. Children explore scaling facts by 10, for example using 3 × 4 = 12 to derive 3 × 40 = 120 and 30 × 4 = 120. A range of representations are used to expose the link between multiples of 1 and multiples of 10. Children begin by using base ten, before moving on to the slightly more abstract representation of place value counters. Children go on to explore this relationship with division, for example using 12 ÷ 3 = 4 to derive 120 ÷ 3 = 40. This will be revisited later in the block. Care should be taken to ensure that children do not also think that 12 ÷ 30 = 40. This is a good opportunity to remind them that multiplication is commutative while division is not.
Step 3 Reasoning about multiplication	In this small step, children develop their knowledge and understanding of the structure of multiplication. Children begin by recapping what multiplication looks like with objects, and gradually use more abstract representations. These include cubes, base 10, arrays and number sentences. They use the symbols and = to compare groups using multiplication and division structures, both in context and within number sentences. Children are encouraged to realise that, for example, 6 × 3 > 6 × 2 without doing any calculation, but by recognising the relationship between the calculations and that the first must give an answer greater than the second because the same number is being multiplied by 3 and 2.
Step 4 Multiplying a 2-digit number by a 1-digit number- no exchange	In this small step, children explore multiplying 2-digit numbers by 1-digit numbers. At this stage, none of the multiplication calculations require exchanges. Children apply their understanding of partitioning to represent and solve calculations using the expanded method. The 2-digit number is partitioned into tens and ones, both are multiplied by the 1-digit number and then the partial products are added to find the total product. This is explored through a progression of representations from base 10 to place value counters and part-whole models, alongside number sentences. The expanded method allows children to gain a deep understanding of the structure of the calculation before progressing to formal short multiplication in Year 4.
Step 5 Multiplying a 2-digit number by a 1-digit number- with exchange	In this small step, children continue to explore multiplying 2-digit numbers by 1-digit numbers, now looking at calculations that involve an exchange. As in the previous step, children apply their understanding of partitioning to represent and solve calculations using the expanded method. This involves partitioning the 2-digit number into tens and ones, multiplying separately, then adding the partial products together. Children use the same representations as in the previous steps to provide familiarity and focus their attention on the new aspect of making an exchange. Use of the expanded method allows children to gain a deep understanding of the structure of the calculation before progressing to formal short multiplication in Year 4.

Step 6 Link multiplication and division	In this small step, children develop their understanding of related facts from earlier in the block, with a focus on linking multiplication and division facts. In particular, children explore what happens when a number within a calculation is multiplied by 10 and how this affects the answer. They use these facts by unitising in tens, for example using 8 6 2 = 4 to derive 8 tens 6 2 = 4 tens, so 80 6 2 = 40. A range of representations are used to make the link between multiples of one and ten, which will be familiar from the multiplication steps earlier in the block. This step will support children to work out divisions in the next few steps of the block.
Step 7 Divide a 2-digit number by a 1-digit number – no exchange	In this small step, children build on their knowledge of times-tables and division facts, using these to support them when dividing a 2-digit number by a 1-digit number. This step focuses on partitioning a number into tens and ones and sharing into equal groups, dividing numbers that do not involve exchanging or remainders. For example, 63 ÷ 3 can be partitioned into 60 and 3 and then shared into three equal groups: 60 ÷ 3 = 20 and 3 ÷ 3 = 1, therefore 63 ÷ 3 = 21 Children use part-whole models and place value counters to represent the calculations and support their understanding. It is important that children divide the tens first and then the ones. While it would not have an impact on their answers in this particular step, getting used to dividing in this way is beneficial for when they move on to dividing numbers involving exchanging and remainders in future steps.
Step 8 Divide a 2-digit number by a 1-digit number – flexible partitioning	In this small step, children continue to divide a 2-digit number by a 1-digit number. They now begin to look at calculations that involve exchanging between the tens and the ones. Children use their previous learning on flexible partitioning to support them with this. For example, to calculate 42 ÷ 3, they need to identify multiples of 3 that 42 can be partitioned into. Children use their knowledge of times-tables facts to partition the number into multiples of the number they are dividing by. For this example, they can partition 42 into 30 and 12, and then use 30 ÷ 3 = 10 and 12 ÷ 3 = 4 to find that 42 ÷ 3 = 14 Children can use place value counters to support their understanding and part-whole models to show what calculations have been done.
Step 9 Divide a 2-digit number by a 1-digit number – with remainders	In this small step, children continue to divide a 2-digit number by a 1-digit number. They apply their knowledge from the previous small steps and also make links between division and repeated subtraction, building on earlier learning. Children look at calculations that may involve exchanging between the tens and ones, and that have a remainder. This will be the first time children have encountered remainders, so they will need to be explicitly taught the notation, for example 43 ÷ 3 = 14 remainder 1 or 14 r1 Practical equipment, such as lolly sticks and place value counters, can be used to support children's understanding.
Step 10 Scaling	In this small step, children develop their understanding of multiplication by focusing on scaling as opposed to repeated addition. Building on concepts such as "3 times as many", children use language such as "3 times the size of" when comparing, for example, lengths. It is important that children see this type of multiplication as well as repeated addition, as it will help them in their later study of ratio and scales. They can relate this to their knowledge of place value and understanding that the value of the column directly to the left of another is 10 times the value. Bar models can be useful to represent the concept. String can be used to illustrate the idea of, for example, "twice as long as" and be related to a bar model representation.
Step 11 How many ways?	This small step focuses on correspondence problems. Children start by systematically listing all the possible combinations resulting from combining two groups of objects. For example, if there are three buckets and four spades, children can explore how many different combinations of bucket and spade they can make. The use of practical equipment to model a question can support children's understanding. Drawing a table helps children to take a systematic approach to ensure that they have found all the possible combinations. By the end of this step, children should be able to use multiplication to calculate the total number of possibilities, as a more efficient strategy than listing them all.
Block 2 Length and Perimeter	
Step 1 Measuring in metres and centimetres	In Year 2, children used either metres or centimetres to measure the length of objects. In this small step, they revise these skills, initially using a ruler to measure objects in centimetres. They then combine both units of measurement, such as 1 m and 20 cm, for example by measuring the lengths of desks or the heights of children in the class. Children do not need to convert between metres and centimetres at this stage, and as they have not yet been

	introduced to decimals, lengths should remain in the format m and cm. Provide opportunities for children to use different measuring equipment, including rulers, tape measures, metre sticks and trundle wheels.
Step 2 Measure in millimetres	This small step builds on children's understanding from the previous step by introducing millimetres as another unit of measurement. Children need to understand that 1 mm is smaller than 1 cm and that millimetres can be used to measure lengths that are not an exact number of centimetres. Allow children time to explore a ruler with millimetre markings to see that there are 10 mm in 1 cm. Children could be encouraged to count in 10s and add on the remaining 1s when finding lengths. For example, when measuring a line that is 8 cm and 3 mm long, they can count in 10s to 80 mm and then add on the extra 3 mm to give a total length of 83 mm. However, at this stage children are not required to formally convert between centimetres and millimetres. Children may find measuring oblique lines more difficult than horizontal or vertical lines. Model how rotating the page can make it easier to measure.
Step 3 Measure in centimetres and millimetres	In this small step, children combine learning from the previous steps to measure objects in centimetres and millimetres. Measurements should be recorded in the form "4 cm and 3 mm", and encourage children to record their measurements as centimetres and millimetres, not the other way around. If possible, show children a ruler that has a centimetre scale on the top and a millimetre scale on the bottom to allow them to see the relationship between centimetres and millimetres. If children are finding it difficult to measure using millimetre intervals, support them to identify the 5 mm interval on their ruler and count forwards or backwards. After sufficient practice, children's measurements should be accurate to within 2 mm. As well as measuring lengths, children also practise drawing lengths accurately.
Step 4 Metres, centimetres and millimetres	In this small step, children compare and consider the appropriateness of different units of measurement. Children need to understand that although, for example, metres are used to measure longer distances, it is still possible to measure these distances in centimetres or millimetres. Encourage discussion about why it is important to choose the appropriate unit or measuring equipment before measuring an object or length. Children make simple comparisons of lengths that do not require them to understand equivalent units of measurement, for example, comparing 3 m with 3 cm. By this stage, however, they should know how many centimetres are in 1 m and how many millimetres are in 1 cm.
Step 5 Equivalent lengths (metres and centimetres)	In this small step, children use the fact that 1 m is equivalent to 100 cm. They use this to convert multiples of 100 cm into metres and metres into multiples of 100 cm. At the beginning of this step, it might be helpful to practise counting in 100s as a class. Encourage children to partition the measurement into metres and centimetres when converting lengths that are not multiples of 100, for example 134 cm = 1 m and 34 cm. Part-whole models, bar models and double number lines are useful representations to support children in these conversions. Children may also be encouraged to find and use common fractions to convert between metres and centimetres, for example 1/2 m is equivalent to 50 cm, so 41 2 m is equivalent to 450 cm.
Step 6 Equivalent lengths (centimetres and millimetres	In this small step, children use the fact that 1 cm is equivalent to 10 mm. They use this to convert millimetres into centimetres and centimetres into millimetres. Recapping previous knowledge of multiples of 10 from Spring Block 1 may be useful prior to teaching this new content. As children have not yet formally explored multiplying and dividing by 10, they should be encouraged to partition measurements into centimetres and millimetres when converting lengths that are not multiples of 10, for example 34 mm = 30 mm + 4 mm = 3 cm and 4 mm. As in previous steps, children do not need to use decimal notation in this step. Bar models, part-whole models and double number lines are also useful representations to explore the connection between units of measurement.
Step 7 Compare lengths	In this small step, children compare and order lengths using comparison language and inequality symbols. Building on the previous two steps, they need to convert all the measurements to the same unit of length before comparing. Children can use practical equipment to justify decisions, measuring and comparing lengths of objects inside and outside the classroom to practise their measuring skills. Children may need reminding of the meaning of the inequality symbols, < and >. Recapping how many millimetres are in a centimetre and how many centimetres are in a metre will also be useful. Ensure children are aware that while they use the words shorter/longer when comparing lengths, they should use shorter/taller when talking about height.
Step 8 Add lengths	In this small step, children add lengths. They begin by adding lengths that are measured in the same unit of measurement, before adding lengths that have different units. When measurements have different units, children should find equivalent lengths with the same unit to allow them to add the two

	lengths. It is important to explore with children that this can be done in two ways, for example 38 mm + 2 cm 1 mm could be added as 38 mm and 21 mm or as 3 cm 8 mm and 2 cm 1 mm. Encourage children to discuss the different strategies available when adding lengths, before choosing the most efficient method. This step provides an opportunity to revisit addition both with and without exchanges as covered in Autumn Block 2 Children will use skills learnt in this step when adding lengths to find the perimeter later in the block.
Step 9 Subtract lengths	In this small step, children begin by subtracting lengths that are measured in the same unit of measurement. They then look at subtracting milllimetres from a whole number of centimetres as well as centimetres from a whole number of metres using simple conversions, for example 1 m – 35 cm and 4 cm – 3 mm. They then explore more complex examples where the lengths have different units of measurement and therefore equivalent lengths need to be found, for example 4 m 36 cm – 112 cm. This can be a useful opportunity to also revisit subtraction where there is a need for exchange, for example 2 m 43 cm – 118 cm. Children should be exposed to the different structures of subtraction through word problems: partitioning, reduction and difference. Bar models can be a useful pictorial representation to highlight these different structures.
Step 10 What is perimeter?	In this small step, children are introduced to perimeter for the first time. Children learn that perimeter is the distance around the outside of a closed 2-D shape. Children explore what perimeter is, and what it is not, by deciding whether they can find the perimeter of a group of open and closed 2-D shapes. Provide children with practical opportunities to understand perimeter, such as walking around the perimeter of the playground or using their finger to trace the perimeter of 2-D shapes. At the end of this step, children start to find the perimeter of shapes on squared grids by counting along the edges. Encourage children to mark as they count to ensure they do not miscount.
Step 11 Measure perimeter	In this small step, children measure the sides of different shapes in centimetres to find the perimeter. This builds on the previous step, where children found the perimeter by counting the number of squares of each length. Encourage children to work in a systematic order, possibly marking the lengths after they have been measured, to ensure that children measure the lengths of all the sides. Children should also be encouraged to think about whether it is necessary to measure every side to find the perimeter or whether they can use the properties of 2-D shapes to help them. Children could explore measuring the perimeter of shapes with curved sides by using a piece of wool or string to place along the edges and then measuring the wool or string with a ruler
Step 12 Calculate perimeter	In this small step, children use their understanding of the properties of different shapes to calculate the perimeter of simple 2-D shapes. Encourage children to identify equal sides of a square and equal opposite sides of a rectangle to support them in calculating the perimeter. It is important to explore different strategies for calculating perimeter with children and encourage them to use more efficient strategies, for example for a rectangle they could add all four lengths, they could double the width and length and add them together or they could add the width and length and then double. Although children can calculate the perimeter of rectilinear shapes in this step, these shapes are not formally introduced until Year 4.
Fractions A	
Step 1 Understand the denominators of unit fractions	Children begin this block by exploring the denominators of unit fractions. From Year 2, they know about halves, quarters and thirds and they now look at fractions with other denominators. Children understand that a fraction can be seen as part of a whole and that to find a unit fraction, they divide the whole into equal parts. They then identify the role of the denominator, appreciating that this shows how many equal parts the whole has been divided into. This step explores unit fractions only, with the focus being on the denominator. Non-unit fractions are covered later in the block. It is important that children are exposed to non-standard representations that they may be less familiar with, for example a square split into four equal parts by diagonal lines from the vertices.
Step 2 compare and order unit fractions	In this small step, children use their understanding of denominators developed in the previous step to compare and order unit fractions. They compare and order non-unit fractions later in the block. Children compare fractions by observing the part-whole relationship. For example, if they split the whole into 4 equal parts, the parts will be bigger than if they had split the whole into 10 equal parts meaning / 4 is a bigger part of the whole than 1/10 is. They use diagrams and bar models to illustrate this before moving on to understanding that when the numerators are the same then the greater the denominator, the smaller the fraction. Once this understanding is secure, children order unit fractions without pictorial support.

Step 3 Understand the numerators of non-unit fractions	In this small step, children explore and understand the role of the numerator in unit and non-unit fractions. Children need to be secure in their understanding of unit fractions before moving on to non-unit fractions. Children understand that a non-unit fraction is made up of a quantity of unit fractions, for example 3/4 is the same as three single quarters or 1/4 + 1/4 + 1/4 A range of representations, including shaded shapes, number lines and bar models, can be used to help children identify fractions. Concrete and pictorial resources are useful for demonstrating the role of the numerator as well as reinforcing the role of the denominator.
Step 4 Understand the whole	In this small step, children explore the whole in relation to fractions. They use diagrams and other representations to develop their understanding that when the numerator of a fraction is equal to its denominator, then the fraction is equivalent to 1 whole. Once this understanding is secure, children move on to "making the whole". Children start by using diagrams to identify how many equal parts a shape has been split into and how many are shaded, before thinking about how many more parts need shading to make the whole. This will be investigated further when adding and subtracting fractions is covered later in Year 3.
Step 5 Compare and order non-unit fractions	In this small step, children use their knowledge of comparing and ordering unit fractions from Step 2 as they start to compare and order non-unit fractions. The focus is on comparing and ordering fractions with the same denominator. Bar models and other representations, such as strips of paper, can be used to support children's understanding of fractions. They should recognise that if the denominator is the same, then the greater the numerator, the greater the fraction or the smaller the numerator, the smaller the fraction. Children could be encouraged to make links between the two types of comparing and ordering they have explored so far: unit fractions with different denominators, and non-unit fractions with the same denominator.
Step 6 Fractions and scales	In this small step, children apply the learning from previous steps to explore real-life contexts of measure by interpreting scales. Children use their understanding of numerators and denominators to determine how many equal parts a scale has been split into, and then what fraction is shown. This is covered in contexts such as mass, volume and length. A small range of fractions is explored, focusing on quarters, halves and thirds, and the whole is always 1, for example 1 metre, 1 litre, 1 kilogram. Children do not need to convert between units, and should record all amounts as fractions, for example 1/2 metre rather than 50 cm.
Step 7 Fractions on a number line	Building on the work on scales, in this small step children explore how fractions can be represented on a number line. They have seen some examples of this earlier in the block, where bar models were used above number lines for support, but here they focus on number lines explicitly. Children identify how many equal parts a number line has been split into. A common error here is counting the number of dividing lines rather than the number of intervals. Once children are confident identifying the number of intervals, they label each one with a fraction. For example, on a number line split into five equal parts, each interval is worth one fifth. At this point, children do not need to count up in fractions (for example, 1/5, 2/5, 3/ 5 …), as this comes in the next step; they just need to label each interval as a unit fraction.
Step 8 Count in fractions on a number line	In this small step, children build on their understanding from the previous two steps to count fractions on a number line. Children count both forwards and backwards in fractions and use this to support them in labelling missing fractions on a number line. None of the fractions that children see in this step exceed 1 whole. Particular attention should be drawn to the fact that these number lines always begin at zero, as a common error is to begin the count at 1/? on the first division. It is important to explore with children how they can label the end point of the number lines in two ways: as 1 or as a fraction where the numerator is equal to the denominator. When confident with labelling number lines, children may begin to estimate the positions of fractions on a blank number line.
Step 9 Equivalent fractions on a number line	In this small step, children explore finding equivalent fractions by comparing multiple number lines and using double number lines. The focus of this step is on using number lines to find equivalent fractions by looking at fractions that are in line with each other (equal in value), rather than more abstract methods using multiplicative reasoning. A common mistake with this method is drawing bars of unequal length. To avoid this potential error, it can be useful to reinforce one of the key learning points from previous steps: when the numerator and denominator are equal, the fraction can also be shown as 1. Therefore, when drawing multiple number lines to find equivalent fractions, the start and end points (0 and 1) must always be in line with each other. Children also compare multiple number lines to find families of equivalent fractions, looking for patterns and relationships.

Step 10 Equivalent fractions as bar models	In this small step, children deepen their understanding by exploring bar models as another way of representing equivalent fractions. Children begin by comparing two bar models of equal length divided into different amounts to identify any equivalent fractions. As with the previous step, a common mistake here is drawing bar models of unequal length. Once confident, children progress to comparing multiple bar models to find families of equivalent fractions, again exploring any patterns. Another strategy for finding equivalent fractions is to use a single bar model and to break up each of the existing parts into smaller ones. A common error is not splitting the existing parts into the same number of smaller equal parts, so this key point must be stressed. Children may find folding strips of paper useful in supporting their understanding of bar models.
Block 4 Mass and Capacity	
Step 1 Use scales	In Year 2, children began using grams and kilograms when exploring mass. In this block, children continue to explore mass in kilograms and grams before moving on to capacity. An essential skill in this block is for children to be able to use and understand scales. This small step provides opportunity for children to become more familiar with using scales to read measurements. The focus is on dividing 100 into 2/4/5/10 equal parts using number lines, before applying this skill in various contexts later in the block. By working out what the interval gaps are on a number line, children become more experienced at reading scales in the context of measurement. They learn what size groups are made when 100 is split into equal parts, then extend this learning to other multiples of 100.
Step 2 Measure mass in grams	In this small step, children measure mass in grams only. This builds on their learning from Key Stage 1, but with masses now going up to 1,000 grams. Give children a variety of objects to weigh using scales, so that they can understand what a given number of grams can look or feel like. This also provides the opportunity to bring in the learning from the previous step, giving children a chance to read a variety of different scales, and compare this to the number lines they used in the last step. When reading scales, children need to work out missing intervals between numbers. They should recognise that they still need to consider the start and end point, as well as the number of intervals on the scale.
Step 3 Measure mass in kilograms and grams	In Year 2, children measured objects with masses that are whole numbers of kilograms. In this small step, they measure the mass of objects in both kilograms and grams, as well as fractions of kilograms. For example, an object may have a mass of 2 kg and 500 g and children should recognise that this is equivalent to two and a half kilograms. In this block, they always read the measurement as kg and g, not in decimal form, as decimals are not introduced until Year 4 Children use their learning from the previous step alongside the fact that 1,000 g is equivalent to 1 kg to work out amounts of grams on a kilogram scale that is divided into sections.
Step 4 Equivalent masses (kg and gr)	In the previous two steps, children measured objects in both grams and kilograms, and read scales showing both of these units of measure. In this small step, children build on their understanding of 1 kg being equivalent to 1,000 g, and this point will be explored in great depth, so the masses in the questions will not go over 1 kg. Formal conversion between kilograms and grams is taught in Year 5 Children also draw on other previously learnt skills, as they use addition and subtraction to make amounts of grams up to 1 kg. They continue to look at fractions of a kilogram, and should know that 1/2 of a kilogram is 500 g and 1/4 of a kilogram is 250 g.
Step 5 Compare mass	In this small step, children compare the masses of different objects using grams and kilograms. In Year 2, children decided if an object was heavier or lighter by using balance scales. They now use units of measure to work out which object is heavier or lighter. Understanding that kilograms are heavier than grams will help them to compare mass, for example 100 g is lighter than 100 kg. They can also compare using fractions: for example 1/2 kg is heavier than 400 g. Children then go on to compare masses that combine kilograms and grams. They should recognise that, because kilograms are heavier than grams, they should compare the kilograms first: for example 1 kg and 300 g is lighter than 3 kg and 300 g. If the kilograms are the same, they then need to compare the grams: for example 1 kg and 300 g is heavier than 1 kg and 100 g.
Step 6 Add and subtract mass	This step is the final step on mass in this block. In this small step, children add and subtract mass. They transition from writing, for example, 2 kg and 300 g to writing 2 kg 300 g as this makes it easier to read many of the calculations, and makes it easier for children to distinguish between the two quantities. They use their understanding of kilograms and grams to add and subtract quantities of both. Concrete resources and bar models support their understanding. When a mass that is a mixture of kilograms and grams is added to another mass, the children partition the mass into kilograms and

	grams, then add the separate parts. This is a good opportunity for children to practise their mental addition and subtraction, as many of the numbers involved will not necessitate the written method. As children have not yet explored numbers beyond 1,000, there will be no requirement to bridge 1 kg with addition or subtraction.
Step 7 Measure capacity and volume in millilitres	In this small step, children use the units of litres and millilitres to measure capacity and volume. They describe mixed amounts as " litres and millilitres", so do not need to use decimal notation or make conversions such as 2 litres and 400 ml is equal to 2,400 ml. Children use their learning from the previous small step alongside the fact that 1,000 ml is equal to 1 litre to allow them to interpret different scales. Interpreting scales is a vital skill, so children should be exposed to a range of different-sized containers as well as scales split into a different number of intervals. Continue to reinforce the difference between capacity and volume.
Step 8 Measure capacity and volume in litres and millilitres	In this small step, children use the units of litres and millilitres to measure capacity and volume. They describe mixed amounts as " litres and millilitres", so do not need to use decimal notation or make conversions such as 2 litres and 400 ml is equal to 2,400 ml. Children use their learning from the previous small step alongside the fact that 1,000 ml is equal to 1 litre to allow them to interpret different scales. Interpreting scales is a vital skill, so children should be exposed to a range of different-sized containers as well as scales split into a different number of intervals. Continue to reinforce the difference between capacity and volume.
Step 9 Equivalent capacities and volume (litres and ml)	In the previous two steps, children measured capacity and volume in both litres and millilitres, and read scales using both of these units of measure. In this small step, they build on their understanding of 1 litre being equivalent to 1,000 ml, and this point will be explored in great depth, so the volumes and capacities in the questions will not go over 1 litre. Children also draw on other previously learnt skills, as they use addition and subtraction to make amounts of millilitres up to 1 litre. They continue to look at fractions of a litre, and should know that 1/2 of a litre is 500 ml and 1/4 of a litre is 250 ml.
Step 10 Compare capacity and volume	Building on their understanding of litres and millilitres, in this small step children compare capacities and volumes. Children first compare capacities or volumes purely by visual estimation, for example a bath must have a greater capacity than a cup. They also use language such as "full", "nearly full", "half full" and "nearly empty" to compare volumes without measuring. They then progress to using "greater than" and "less than" as well as the inequality symbols (<,>, =) to compare capacities and volumes that can be measured. It is important to explore the common misconceptions that a taller container must have a greater capacity, and that if the level of liquid is higher up a scale, the volume must be greater. Initially, children compare the same units of measure, but then move on to comparing litres to millilitres, building on the work done in Step 8.
Step 11 Add and subtract capacity and volume	In this small step, children explore adding and subtracting capacities and volumes. Children use mixed units, adding the litres and millilitres separately. Use of part-whole models can support this. This is a good opportunity for children to practise their mental addition and subtraction, as many of the numbers involved will not necessitate the written method. As children have not yet explored numbers beyond 1,000, there will be no requirement to cross 1 litre with addition or subtraction, but children will use their knowledge of 1,000 ml being equivalent to 1 litre to subtract from whole litres.