Mayflower FEDERATION

Mathematics Year 5 Spring Term

Block 1 Multiplication and Division B	
Step 1 Multiply up to a 4-digit number by a 1-digit number	In Year 4, children used the formal written method to multiply numbers with up to three digits by a 1-digit number. This small step builds on this learning and extends the formal written method for short multiplication to multiplying 4-digit numbers by a 1-digit number. Place value counters in place value charts are used to model the structure of the formal method, enabling children to gain a greater understanding of the abstract procedure. Children continue to use counters to exchange groups of 10 ones for 1 ten and this is extended to include exchanging 10 tens for 1 hundred, 10 hundreds for 1 thousand and 10 thousands for 1 ten-thousand. Children can use their knowledge of rounding and multiplying by multiples of 10 to find estimates to the answers, as a check that their calculated answers are sensible.
Step 2 Multiply a 2-digit number by a 2-digit number (area model)	In this small step, children build on their learning of multiplying by a 1-digit number and begin to multiply by a 2-digit number. Children use the area model to multiply a 2-digit number by another 2-digit number before moving on to the formal written method in the next step. Linking the use of the area model to children's prior knowledge of arrays helps children to understand the model. They see that to find the total product, they can break the calculation down, find other products and then add them together. Initially, the area model is represented using base 10, which will enable children to understand size, scale and place value. Once the children have a good understanding of place value within the area model, they use place value counters to work more efficiently. They then progress to using only numbers in the model.
Step 3 Multiply a 2-digit number by a 2-digit number	In this small step, children progress from the area model to using the formal written method for multiplication. Encourage children to recognise the links between the area model and the formal method, noting where the subtotals in the formal method match the totals of parts of the area model. This will support children's understanding of each step of the calculation process. A common error when using the formal written method for multiplication is for children to omit the zero placeholder in the ones column when multiplying by the tens digit. Comparing to the area model should make it clear to children why this is needed. Children can check their answers by rounding to find estimates, for example 42 × 32 is about 40 × 30 = 1,200, so the actual answer should be close to this.
Step 4 Multiply a 3-digit number by a 2-digit number	In this small step, children build on their understanding of multiplying a 2-digit number by a 2-digit number using the formal written method for multiplication and extend it to multiplying a 3-digit number by a 2-digit number. It is important that children are confident with the previous step before moving on to this one and it may be necessary to refer back to the area model for clarification. Again, ensure that children have an understanding of the role of zero in the ones column when multiplying by the tens digit. Children use the formal written method for multiplication to solve multi-step problems, including problems from other topics of mathematics such as area.
Step 5 Multiply a 4-digit number by a 2-digit number	In this small step, children build on their understanding from the previous two steps to multiply a 4-digit number by a 2-digit number. Children need to be confident with multiplying 2-digit numbers by both 2- and 3-digit numbers before moving on to this step. As they are now working with greater numbers, it is important that children understand the steps taken when using the long multiplication method. An area model using place value counters could potentially be useful to support children who need it, but the emphasis should be on using the formal written method. As with the previous steps,

	children need to understand the role of zero in the ones column when multiplying by the tens. The main focus of this small step is for children to practise completing multiplications of this sort before moving on to solve problems in the next step.
Step 6 Solve problems with multiplication	In this small step, children apply their knowledge of multiplication to solve problems. Children practise both the formal written method for multiplication and the use of efficient mental strategies. It is important that children explore a variety of methods to solve multiplication problems and discuss which is the most efficient. They may refer to known facts to help them derive unknown facts. For example, to calculate 9,999 × 6, they can calculate 10,000 × 6 and then subtract 1 lot of 6 Building on their learning from Year 4 (where they multiplied three numbers), children should use their knowledge of multiplication being commutative to multiply the numbers in any order, depending on which is the most efficient.
Step 7 Short division	Building on informal methods used in Years 3 and 4, this small step introduces children to the formal written method of short division. The formal calculation is shown alongside familiar models, in particular part-whole models, place value counters and place value charts. In this way, the structure of short division becomes clear, enabling children to see the relationship between the model and the formal written method. First, children use the formal method to divide a 2-digit number by a 1-digit number, initially without an exchange and then with an exchange. They then divide a 3-digit number by a 1-digit number, again without and then with an exchange. Dividing 4-digit numbers is covered in the next step, with calculations involving remainders following later in the block.
Step 8 Divide a 4-digit number by a 1-digit number	Following the introduction of formal short division in the previous step, in this small step children move on to dividing a 4-digit number by a 1-digit number. Place value counters continue to be used to represent the calculations alongside the formal written method, so that children can visualise how one relates to the other. In particular, place value counters in place value charts help children to make sense of the steps that they are taking and how this relates to the context of the question. Children begin with divisions that have no exchanges and then progress to those with exchanges. Divisions with remainders are covered in the next step.
Step 9 Divide with remainders	In previous years, children have looked at division with remainders informally. In this small step, they move on to formal calculations that result in a remainder. The formal written method for short division continues to be used alongside familiar models. Children use place value charts and counters so that they associate the remainder with the amount "left over". The progression of examples is carefully chosen to focus children's attention on the link between the remainder and the number being divided by. They should generalise that a remainder must be less than the number being divided by. Remainders are represented in the calculation as r1, r2 and so on. In this step, the focus is on completing and understanding the calculation procedure. Making decisions about the remainder based on the context of the question is covered in Step 11.
Step 10 Efficient division	So far in this block, children have divided numbers with up to four digits in a range of contexts, using various methods. They have used informal methods to understand the structure of division and the formal written method to promote efficiency. In this small step, children consolidate their knowledge and understanding of division and begin to make decisions regarding the most efficient or appropriate methods to use in a range of contexts. They begin by looking at informal methods, such as partitioning, using known facts, factor pairs and number lines, and then compare these to the formal written method. They make decisions about which method they prefer or which would be more efficient for a given problem.
Step 11 Solve problems with multiplication and division	In this small step, children apply their knowledge of multiplication and division to solve problems. The main focus of the step is on giving children the opportunity to choose which operation is needed in order to answer a particular problem, and then to solve the problem. Pictorial representations, such as bar models, can support children's understanding. Children also develop their understanding of the remainder when performing a division in context. For example, if pencils come in packs of 4 and a class needs 30 pencils, how many packs are needed? Children may recognise that they need to divide 30 by 4, which is equal to 7 remainder 2. However, in order to answer this question correctly, they need to be aware that 8 packs are needed. In a different context, 7 remainder 2 may mean only 7 full packs can be made.
Block 2 Fractions	
Step 1	In this small step, children encounter multiplication number sentences with fractions, multiplying unit fractions by an integer. Make links to multiplication as repeated addition: if children know that 1/5 × 4 = 1/5 + 1/5 + 1/5 + 1/5, this will link back to previous learning and avoid the common

Multiply a unit fraction by an integer	misconception of multiplying both the numerator and the denominator by the integer. Bar models are a useful representation and can show the calculations in multiple or single bars. When answers are greater than 1, encourage children to write their answers as a mixed number. They may also find a number line useful. This learning is built upon in the next few steps, when children multiply non-unit fractions and mixed numbers.
Step 2 Multiply a non-unit fraction by an integer	In this small step, children build on the previous step to multiply non-unit fractions by integers. As in the previous step, children make the link between multiplication and repeated addition, and use bar models and number lines to support calculations. However, they should become more fluent and recognise the generalisation that they need to multiply the numerator by the integer and leave the denominator the same. Children need to be able to convert improper fractions to mixed numbers and could use number lines or other representations to help. In the next small step, children combine their learning from the first two steps to multiply mixed numbers by integers.
Step 3 Multiply a mixed number by an integer	In this small step, children build on their learning from the first two steps to multiply mixed numbers by integers. Children need to be secure in their understanding of multiplying proper fractions by integers before adding the extra challenge of multiplying mixed numbers. Children explore a range of methods to complete the calculations and discuss the efficiency of each. To build understanding, initially calculations should not involve converting improper fractions to mixed numbers. Once children are secure in using the methods, they can explore questions where in the answer, the fractional part of the calculation is greater than 1 and needs converting to a mixed number before combining the totals.
Step 4 Calculate a fraction of a quantity	In this small step, children calculate a fraction of a quantity, building on understanding from previous years. The step focuses on using concrete and pictorial representations to support learning. Children begin by using real-life objects or counters and sharing them into equal groups. This helps children to identify the relationship between dividing by the denominator and multiplying by the numerator. They start by finding unit fractions of amounts and, when they are secure in their understanding, move on to non-unit fractions. Children will build on this understanding in the next step, in which they focus on more abstract methods.
Step 5 Fraction of an amount	In this small step, children find fractions of amounts using more pictorial and abstract methods, rather than relying on concrete resources. Bar models are useful tools to help represent this mathematical concept and can also help to show links between finding unit fractions of amounts and non-unit fractions of amounts. Children initially use times-table facts, then move on to solve calculations that go beyond these. Once children are secure in finding non-unit fractions of amounts, they compare two calculations, for example 2/3 of 30 and 4/5 of 20 The learning from this step is built upon in Step 6, when children find the whole from a fractional part.
Step 6 Find the whole	In this small step, children build on their understanding of finding a fraction of an amount, as they use a fraction of an amount to find the whole. Children start with finding the whole from a unit fraction, initially using counters and bar models for support. They identify that if they know one equal part, they can use multiplication to find the whole. Once this is secure, children move on to finding the whole from a non-unit fraction. They should start by identifying what one part is to help them work out the whole.
Step 7 Use fractions as operators	In this small step, children revisit and compare their learning from earlier in the block as they look at fractions as operators. They should recognise the connection between finding a fraction of an amount and multiplying a fraction by an integer. Firstly, children are encouraged to both find fractions of amounts and multiply fractions, and to identify patterns. It may be appropriate to recap converting improper fractions to whole numbers/mixed numbers. Children should also recognise that commutativity of multiplication can be used, for example 1/3 of 6 is the same as 6 × 1/3. They also explore when it would be more efficient to choose each method, using their knowledge of factors.
Block 3 Decimals and Percentages	
Step 1 Decimals up to 2 decimal places	In Year 4, children represented tenths and hundredths as decimals and fractions. By the end of this small step, children will be more familiar with numbers with up to 2 decimal places, with thousandths being introduced later in the block. Using a hundred piece of base 10 as 1 whole, a ten piece as a tenth and a one piece as a hundredth shows children that they can exchange, for example, 10 tenths for 1 whole, or 10 hundredths for 1 tenth. A hundred square where each part represents 1 hundredth, or 0.01, can also help children to see the relationship between a hundredth, a tenth and a

	whole. Children make decimal numbers using place value counters in a place value chart and read and write the numbers, as well as working out the value of each digit in the number. They also explore partitioning decimal numbers in a variety of ways.
Step 2 Equivalent fractions and decimals (tenths)	In Year 4, children learnt about tenths as fractions as well as decimals. In this small step, children consolidate their understanding of equivalent fractions and decimals when working with tenths. Children start by exploring equivalent fractions and decimals within 1, before extending this to numbers greater than 1. Place value counters, bead strings, straws and number lines are all good representations for tenths. Remind children that when 1 is split into 10 equal parts, then one of those parts is called a tenth, which could also be written as 0.1, making 1/10 and 0.1 equivalent. It is important children practise counting up in 0.1s and crossing 1 whole, making sure they do not say "zero point nine, zero point ten, zero point eleven …". For numbers greater than 1, for example 1.2, children should see this written as 1.2, 1/2 10 and 12/10
Step 3 Equivalent fractions and decimals (hundredths)	In this small step, children extend the learning of the previous step to explore equivalent fractions and decimals when looking at hundredths. Using a hundred square with a value of 1, and each part worth 1 100 or 0.01, helps children's understanding of hundredths in relation to the whole. They also see that because 10 100 is equivalent to 1/10, decimal numbers with 2 decimal places can be partitioned into tenths and hundredths, for example 32/100 = 3/10 + 2/100 and 0.32 = 0.3 + 0.02. Learning then extends to decimals and fractions greater than 1. Children see fractions greater than 1 whole as both mixed numbers and improper fractions, for example 1.03 = 1 and 3/100 = 103/100
Step 4 Equivalent fractions and decimals	In this small step, children look at equivalent fractions and decimals, specifically focusing on halves, quarters, fifths and tenths. They relate this to earlier learning from Key Stage 2, when they divided 100 into 2, 4, 5 and 10 equal parts. By seeing 1 whole divided into 2, 4, 5 and 10 equal parts on a number line, children will see the value of these fractions. They also apply their understanding of equivalent fractions/ decimals from previous learning to this step. Once confident with unit fraction equivalents, children can then explore non-unit fractions such as 3/4 and 2/5. Fraction walls can be used to remind children of equivalent fractions such as 4/10 = 2/5, which will help with their understanding.
Step 5 Thousandths as fractions	In this small step, children encounter the idea of thousandths for the first time. Begin by reminding children that a tenth is 1 whole split into 10 equal parts, a hundredth is 1 whole split into 100 equal parts, and therefore a thousandth is 1 whole split into 1,000 equal parts. Different representations can be used to model this idea, such as a thousand piece of base 10 representing the whole and a one piece representing a thousandth. Once children are familiar with the idea of a thousandth, they use place value counters to represent them. Exchanging counters helps children to see that there are 10 thousandths in a hundredth, meaning 9 thousandths is smaller than 1 hundredth. Finally, they partition thousandths into tenths, hundredths and thousandths, for example 342/1000 = 3/10 + 4/100 + 2/1000
Step 6 Thousandth as decimals	In this small step, children continue to explore the idea of thousandths, by representing them in decimal form. Children learn that 0.001 = 1/1000 is a tenth the size of 0.01 = 1/100. Exchanging place value decimal counters from 1 down to 0.001 helps them to understand the relationship between the different decimals. They use number lines labelled in hundredths and see that by splitting each section into 10 equal parts, the number line now shows thousandths. Children flexibly partition decimal numbers with 3 decimal places. Using place value counters and exchanging between the values will help them to understand this concept.
Step 7 Thousandths on a place value chart	In this small step, children continue to explore the idea of thousandths, by representing numbers with up to 3 decimal places on a place value chart. This is the first time this column of the chart will have been shown to the children and some recap work on the place value chart may be needed. Show children decimal numbers represented on the place value chart with place value counters and ask what decimal number has been made. Then provide children with numbers for them to make using place value counters. They should see that a decimal such as 0.012 is shown on a place value chart as one 0.01 counter in the tenths column and two 0.001 counters in the thousandths column. Children partition decimal numbers in a variety of ways. Making the number first with place value counters and then exchanging for different values will help them flexibly partition decimals.
Step 8 Order and compare	In Year 4, children ordered and compared decimal numbers with up to 2 decimal places. In this small step, that learning is extended to include numbers with 3 decimal places. For this step, the number of decimal places in each number will be the same. Representations such as place value charts and counters and number lines can be used to support children's understanding. To begin with, the numbers will have different digits in the column with the

decimals (same number of decimal places)	greatest value. Children identify the column with the greatest value in each number and identify which number has the greater digit in this column. They then order numbers in a similar way. They progress to two numbers with the same digit in the column with the greatest value so that they use the next column (or the next) to determine which number has the greater value.
Step 9 Order and compare any decimals with up to 3 decimal places	In this small step, children compare decimal numbers that have a different number of decimal places. A common misconception with this learning is thinking that numbers with more decimal places are greater, for example 0.365 > 0.41. Using place value counters on a place value chart to build numbers supports children in developing their understanding. They should recognise that 0.41 has more tenths than 0.365 – it does not matter that it has fewer decimal places. Using place value charts supports children to recognise that they need to start comparing the numbers from the place value column that has the highest value, and that if this is the same, they need to look at the next column. When progressing to ordering sets of numbers, encourage children to work systematically through the list, starting by comparing the place value column that has the greatest value, then working their way down.
Step 10 Round to the nearest whole number	Earlier in Year 5, children rounded whole numbers within 1,000,000. In Year 4, they rounded decimal numbers to the nearest whole number. In this small step, children round numbers with 1 and 2 decimal places to the nearest whole number. This extends to rounding to 1 decimal place in the next step. Begin by recapping what whole numbers are and which integers are either side of a decimal number. Place value charts and counters allow children to explore how far away each integer is on either side of the decimal number. Using a number line supports understanding of rounding and helps determine which whole number is closer. Children decide whether the number is greater or smaller than the halfway point between the integers. When the number is exactly halfway between two whole numbers, explain that the convention is to round to the greater of the two, for example 6.5 rounds to 7.
Step 11 Round to 1 decimal place	In this small step, children build on the previous step by rounding to 1 decimal place. They see which numbers with 1 decimal place are either side of a number with 2 decimal places. From here, they work out which number with 1 decimal place is closer. As with rounding to the nearest whole number, a number line is a useful visual aid. When rounding to 1 decimal place, if the digit in the hundredths column is 5, children learn that the number rounds to the greater of the two numbers with 1 decimal place. It is important that children understand that integers, including zero, can also be written as numbers with 1 decimal place, for example 3 = 3.0 For this step, only numbers with up to 2 decimal places will be rounded, as rounding numbers with 3 decimal places is covered in Year 6.
Step 12 Understand percentages	In this small step, children are introduced to percentages for the first time. Children learn that "per cent" relates to "number of parts per 100". If the whole is split into 100 equal parts, then each part is worth 1%. Hundred squares and 100-piece bead strings or Rekenreks are useful representations for exploring this concept. This idea can also be linked to previous learning by comparing to hundredths being 1 part out of a whole that is split into 100 equal parts; this will be covered in greater detail in the following steps. Using bar models, the learning extends to 1 whole being split into 10 equal parts, allowing children to explore multiples of 10%. Children then estimate 5% on a bar model split into 10 equal parts by splitting a section in half, for example 35% is three full sections and half of the next section.
Step 13 Percentages as fractions	In this small step, children continue to explore percentages by comparing them to fractions. In the previous step, children saw that a percentage was a number of parts per hundred. This links to seeing a percentage as a fraction with a denominator of 100. This learning extends to 10% being equivalent to 1/10 and therefore 20% equivalent to 2/10 and so on. Children use a fraction wall to split 100% into different-sized groups and so work out the percentage equivalents of fractions, for example 1/4 is 100% split into 4 groups, 100 ÷ 4 = 25, so 1/4 = 25%. The focus of this step is percentages and fractions within 1 whole only. Decimal equivalents will be introduced in the next step.
Step 14 Percentages as decimals	In the previous step, children began looking at the relationship between percentages and fractions. In this small step, they find decimal equivalents to percentages. Use place value counters, bead strings and straws to recap that when 1 whole is split into 10 equal parts, each part is equal to 0.1 and when it is split into 100 equal parts, each part is equal to 0.01. Children relate this understanding to percentages, comparing 0.1 and 10%, and 0.01 and 1%. If 10% = 0.1 and 1% = 0.01, then 11% = 0.1 + 0.01 = 0.11 Children may begin to see a "trick" of writing "zero point" in front of the

	percentage to make a decimal, but this will cause confusion when converting single-digit percentages into decimals or, later, percentages greater than 100%. Exploring the equivalence of 0.01 and 1% using a variety of representations will help children avoid this misconception
Step 15 Equivalent fractions, decimals and percentages	This small step builds on the previous two steps, with children now finding equivalent fractions, decimals and percentages. As this concept is covered again in Year 6, the focus at this stage should be kept quite narrow, mainly looking at the equivalents to halves, quarters, fifths and tenths. All of these equivalents can be found by splitting up a hundred square or bead string into the given equal parts and then making the link to hundredths. Once children are confident finding the unit fraction equivalents, they explore finding the non-unit fraction equivalents, for example 3/4 , 1/2 and 7/10. Other representations, such as number lines and bar models, are useful for helping children to visualise the relationship between fractions, decimals and percentages. Children begin to explore less standard conversions such as 92%, which will be covered further in Year 6
Block 4 Perimeter and Area	
Step 1 Perimeter of rectangles	In this small step, children build on learning from earlier years to find the perimeters of rectangles by measuring the sides and by calculation. Children know that the perimeter is the distance around the outside of a two-dimensional shape. They recap measuring skills and recognise that they need to use a ruler accurately in order to get the correct answer. A common mistake is to measure from the end of the ruler rather than from the zero mark. Children then explore different methods of finding the perimeter, for example adding all four sides separately, adding the length to the width and then doubling, or doubling the length and the width and then adding the results, before deciding which they find most efficient. Children use their understanding of perimeter to calculate missing lengths.
Step 2 Perimeter or rectilinear shapes	In this small step, children build on their Year 4 learning to calculate the perimeters of rectilinear shapes. A rectilinear shape is a shape that has only straight sides and right angles. This can look like two or more rectangles that have been joined together and is sometimes referred to as a compound shape. Children should be familiar with both terms. When calculating the perimeter of a rectilinear shape, encourage children to mark sides that they have already included in their total, to avoid counting sides more than once. Children may notice the connection between the perimeter of some rectilinear shapes and the rectangle that can be drawn around the shape.
Step 3 Perimeter of polygons	In this small step, children apply their knowledge of perimeter to find the perimeters of polygons and to solve word problems. A polygon is a closed two-dimensional shape with straight sides. The difference between regular and irregular shapes could be a good discussion point during this step. A regular shape is a two-dimensional shape with equal sides and angles, so a square is a regular rectangle. When given the length of one side, children use their knowledge of regular shapes to find the perimeter by multiplying by the number of sides. Children use the perimeter of a shape to find a missing side. Using pictorial representations, such as drawing the shape and adding the known values, will support children when problem solving.
Step 4 Area of rectangles	In Year 4, children learnt that area was the space inside a two-dimensional shape. In this small step, they recap this key concept by making a visual comparison of two shapes without having to work out the area. They then go on to find the areas of shapes by counting squares, and are introduced to the square centimetre (cm2) by counting squares on a centimetre squared grid. Highlight the difference between 1 cm and 1 cm2, to ensure children understand that cm is a measure of length and cm2 is a measure of area. Arrays can help children understand why they can multiply the length by the width to calculate the area of a rectangle, which they can then use to find the area of shapes not drawn on a centimetre squared grid. Children should be made aware that cm2 is not the only unit used to measure area, and other units such as mm2, m2 and km2 are also examples of units of area.
Step 5 Area of compound shapes	In this small step, children learn to calculate the areas of compound shapes, which are shapes made up of two or more other shapes. The focus is on rectilinear shapes. To support their understanding, give children compound shapes for them to physically cut or split. They could find the area of each rectangle and deduce the total area of the shape. Some children will split their compound shape differently from others. This will highlight that a compound shape is made up from other shapes and that the area of the compound shape remains the same, whichever way the shape is split. Children apply their learning from earlier steps to find missing lengths on the shape to support finding the area.
Step 6 Estimate area	In this small step, children use their knowledge of counting squares to estimate the areas of non-rectilinear shapes. Children should be aware that the estimate is not exact and other people may find a different estimate. One way to obtain an estimate is to find the total number of complete squares,

	then include a square if more than half of it is coloured, but not if less than half is coloured. Children use their knowledge of fractions to estimate how much of a square is covered. For larger shapes, the areas of rectangles within them can be found by multiplying the length by the width, rather than counting all the squares individually. To avoid repetition or miscounting, children can physically annotate when counting squares. An alternative method is to match up part-covered squares to create wholes, but this is more demanding and time consuming.
Block 5 Statistics	
Step 1 Draw line graphs	In Year 4, children interpreted and drew line graphs for the first time, focusing on examples where the horizontal axis was a measure of time. In this small step, they revisit this learning and build upon it by looking at other types of graph, for example conversion graphs. Encourage children to join points using a straight dashed line and discuss the fact that this is used because they cannot be certain of exact values between the given values at two points. However, this does not apply to conversion graphs. Explore different sets of data that call for a range of intervals on the vertical axis. Children can decide what intervals to use by looking at the greatest and lowest values and using an appropriate scale.
Step 2 Read and interpret line graphs	In the previous step, children drew their own line graphs. In this small step, they interpret information that has been presented on a line graph and answer questions and solve problems using them. Children read the graph at specific points to get information about one variable based on the other. They also find the difference between two points, the amount of time spent above/below certain points and make inferences based on information presented to them. Model questions such as the difference between two points by drawing straight lines between the graph points and the axis and then reading the scales accordingly. Children should also explore estimating points between two intervals and should be able to explain why these are only estimates
Step 3 Read and interpret tables	In this small step, children read and interpret data presented in a table. They look at the data in a table and work out the information that they need to extract from the table to answer questions on the data. Look at a range of questions that can be asked about information in a table, beginning with simple retrieval questions and moving on to comparing amounts, inferring reasons behind information and grouping information. Encourage children to generate their own questions that can be answered using the table. This step is a good opportunity for children to practise their addition and subtraction skills, as well as making comparisons.
Step 4 Two-way tables	In this small step, children explore two-way tables. Two-way tables show more than one piece of information about each variable, for example the number of adults and children in a school and how many do/do not wear glasses. Start by looking at examples as a class, asking what information can be seen from the table. By generating their own questions, children will see the range of possible answers that a two-way table can show, identifying the meaning of each cell by looking at both the horizontal and vertical labels. Children learn to find missing values in the table, such as the total number or one of the parts from given totals.
Step 5 Read and interpret timetables	In this small step, children explore timetables, which are a special type of two-way table. Start by showing children a timetable they are familiar with, such as their school day. Explain why it is important to have this information available and how anyone can read the timetable to understand information they may wish to know. Move on to other timetables that may be relevant to the children's lives, such as TV guides and timetables for local buses and swimming pools. For this step, the questions will mainly focus on interpreting timetables. Calculations using timetables will be covered in detail later in the year.