

| | National Curriculum Statement | All students | | |
|-----------------------------|--|---|---|--|
| | | Fluency | Reasoning | Problem Solving |
| Multiplication and Division | <p>Recall and use multiplication and division facts for multiplication tables up to 12 x 12.</p> | <ul style="list-style-type: none"> Find the answers: $4 \times 12 =$ $5 \times 9 =$ $7 \times 8 =$ $8 \times 11 =$ Fill in the gaps: $4 \times \underline{\quad} = 12$ $8 \times \underline{\quad} = 64$ $32 = 4 \times \underline{\quad}$ $6 = 24 \div \underline{\quad}$ Leila has 6 bags with 5 apples in each. How many apples does she have altogether? | <ul style="list-style-type: none"> $\square \times \square = 48$ Which pair of numbers could go in the boxes? Complete these calculations: $7 \times 8 =$ $7 \times 4 \times 2 =$ $5 \times 6 =$ $5 \times 3 \times 2 =$ $12 \times 4 =$ $12 \times 2 \times 2 =$ <p>Which calculations have the same answer? Can you explain why?</p> <ul style="list-style-type: none"> True or False $6 \times 8 = 6 \times 4 \times 2$ $6 \times 8 = 6 \times 4 + 4$ <p>Explain your reasoning. Can you write the number 24 as a product of three numbers?</p> | <ul style="list-style-type: none"> Find three possible values for \bullet and \blacktriangle. $\bullet \times \blacktriangle = 24$ I am thinking of 2 secret numbers where the sum of the numbers is 16 and the product is 48. What are my secret numbers? Can you make up 2 secret numbers and tell somebody what the sum and product are? How many multiplication and division sentences can you write that have the number 72 in them? |

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| Multiplication and Division | Recognise and use factor pairs and commutatively in mental calculations. | <ul style="list-style-type: none"> $7 \times 5 = \square = 5 \times \square$ Find the missing numbers $12 \times 6 = 6 \times \underline{\quad}$ $2 \times 3 \times 5 = \underline{\quad} \times 5$ $2 \times 7 \times 5 = \underline{\quad} \times 5$ 13×12 can be solved by using factor pairs, eg $13 \times 3 \times 4$ or $13 \times 2 \times 6$. What factor pair could you use to solve 17×8? | <ul style="list-style-type: none"> Fill in the missing numbers $25 \times 3 = \square = \square \div \square$ Use factor pairs to solve 15×8. Is there more than one way you can do it? Multiply a number by itself and then make one factor one more and the other one less. What do you notice? Does this always happen? Eg $4 \times 4 = 16$ $6 \times 6 = 36$ $5 \times 3 = 15$ $7 \times 5 = 35$ Try out more examples to prove your thinking. | <ul style="list-style-type: none"> Place $<$, $>$, or $=$ in these number sentences to make them correct: $50 \times 4 \square 4 \times 50$ $4 \times 50 \square 40 \times 5$ $200 \times 5 \square 3 \times 300$ The school has a singing group of more than 12 singers but less than 32. They sing together in different ways. Sometimes they sing in pairs and sometimes in groups of 3, 4 or 6. Whatever size groups they are in, no one is left out and everyone is singing. How many singers are there in the school choir? |

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| Multiplication and Division | <p>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.</p> | <ul style="list-style-type: none"> Fill in the missing numbers: $\square \times 1 = 13$ $12 \times 0 = \square$ $3 \times 2 \times \square = 18$ Holly has 1 box of 12 eggs, how many eggs does she have? Sally has 0 boxes of 12 eggs, how many eggs does she have? Write these two questions as multiplication sentences. | <ul style="list-style-type: none"> Always, sometimes, never An even number that is divisible by 3 is also divisible by 6. Harvey has written a number sentence. $13 \times 0 = 0$ He says, 'I can change one number in my number sentence to make a brand new multiplication.' Is he correct? Which number should he change? Explain your reasoning. | <ul style="list-style-type: none"> Write the number 30 as the product of 3 numbers. Can you do it in different ways? Try to reach the target number below by multiplying three of the numbers together. Cross out any numbers you don't use. <p>Target number: 144</p> <div style="display: flex; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">5</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">3</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">0</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">6</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">8</div> </div> |

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| Multiplication and Division | <p>Multiply two digit and three digit numbers by a one digit number using formal written layout.</p> | <ul style="list-style-type: none"> • $57 \times 5 =$ • $324 \times 6 =$ • Sahil has 45 packets of sweets. Each packet has 6 sweets in it. How many sweets does he have altogether? | <ul style="list-style-type: none"> • Penny says a two digit number multiplied by a one digit number will always give a two digit answer. Is she correct? Justify your answer. • Find the mistake that has been made in the calculation below. Explain and correct it. $\begin{array}{r} 47 \\ \times \quad 8 \\ \hline 3256 \end{array}$ <ul style="list-style-type: none"> • What number goes in the missing box? Convince me. $3 \square \times 4 = 140$ | <ul style="list-style-type: none"> • What could the numbers in the multiplication be? Every digit is different. $??? \times 3 = ?????$ • Miss Wood orders some new whiteboard pens for Year 5 and 6. There are 160 children in Year 5 and 6. If she orders 6 boxes of 27 pens, will she have enough? Show your calculation. • In one month, Charlie read 814 pages in his books. His mum read 4 times as much as Charlie which was 184 pages more than Charlie's dad. How many pages did they read altogether? Use a bar model to help. |

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| Multiplication and Division | Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. | <ul style="list-style-type: none"> Harry buys 6 chocolate bars, one chocolate bar costs 54p. How much does Harry spend? <ol style="list-style-type: none"> Write a number sentence to represent the problem. Solve the problem. | <ul style="list-style-type: none"> Miss Smith estimates $399 \times 60 = 240000$. Was she right to do that? Explain why. In a box there are red and yellow cubes. For every 5 red cubes there are 3 yellow cubes. Hannah says ' If I have more than 10 red cubes, I will definitely have more than 10 yellow cubes.' Do you agree? Convince me. | <ul style="list-style-type: none"> An ice cream sundae is made from one scoop of ice cream, one topping and one sauce. How many different ice cream sundaes can be created from 5 different flavours of ice cream, 3 different toppings and 4 different sauces? |