

Four Operations What's What

At Kiwi Primary School, we use the following models and images to support the teaching of Addition, Subtraction, Multiplication and Division. For further details, see the Kiwi School Calculation Policy for how this is broken down into each year group.

Addition and Subtraction Models

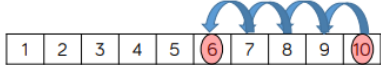
Part-Whole Model	Bar Model (single)	Bar Model (multiple)	Number Shapes
<p> $7 = 4 + 3$ $7 = 3 + 4$ $7 - 3 = 4$ $7 - 4 = 3$ </p> <p> $15 = 3 + 5 + 7$ $26 = 20 + 6$ </p>	<p>Concrete </p> <p>Discrete </p> <p>Combination </p> <p>Continuous </p> <p> $477 = 283 + 194$ $5.3 = 3.9 + 1.4$ </p>	<p>Discrete </p> <p> $7 + 3 = 10$ $7 - 3 = 4$ </p> <p>Continuous </p> <p> $7 - 3 = 4$ $2,394 - 1,014 = 1,380$ </p>	<p> $7 = 4 + 3$ $7 = 3 + 4$ $7 - 3 = 4$ </p> <p> $6+4$ $7+3$ $8+2$ $9+1$ </p>
Cubes	Ten Frames (within 10)	Ten Frames (within 20)	Bead Strings
<p> $7 = 4 + 3$ $7 = 3 + 4$ $7 - 3 = 4$ $7 - 3 = 4$ </p>	<p> $4 + 3 = 7$ $3 + 4 = 7$ $7 - 3 = 4$ $7 - 4 = 3$ </p> <p>4 is a part. 3 is a part. 7 is the whole.</p> <p>First Then Now</p> <p> $4 + 3 = 7$ $7 - 3 = 4$ </p>	<p> $8 + 7 = 15$ $14 - 6 = 8$ $7 + 6 + 3 = 16$ </p>	<p> $8 + 7 = 15$ $14 - 6 = 8$ </p>

Number Tracks

$5 + 3 = 8$



$10 - 4 = 6$

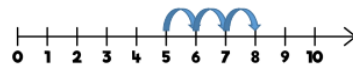


$8 + 7 = 15$

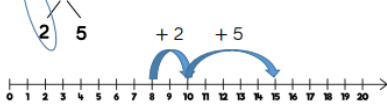


Number Lines (labelled)

$5 + 3 = 8$



$8 + 7 = 15$

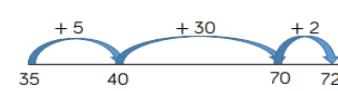


$14 - 6 = 8$

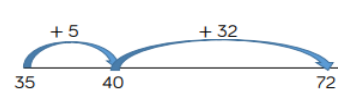


Number Lines (blank)

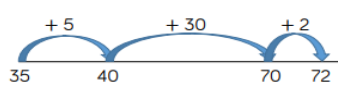
$35 + 37 = 72$



$35 + 37 = 72$

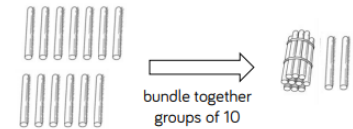


$72 - 35 = 37$

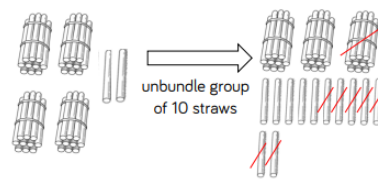


Straws

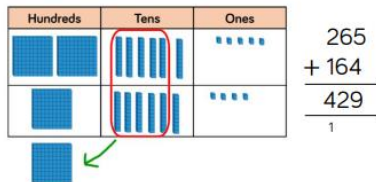
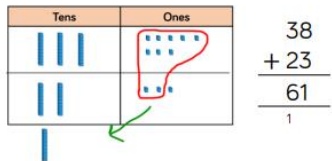
$7 + 6 = 13$



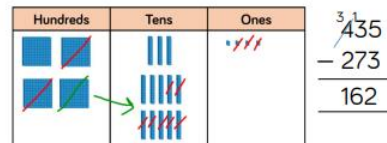
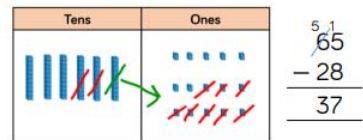
$42 - 17 = 25$



Base 10/Dienes (addition)

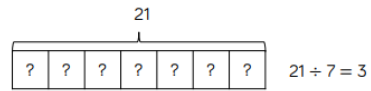
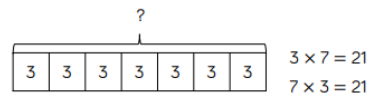
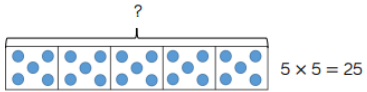


Base 10/Dienes (subtraction)

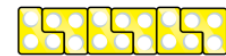
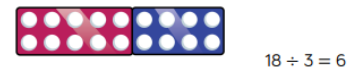


Multiplication and Division

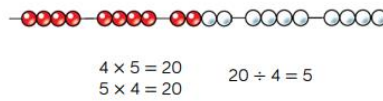
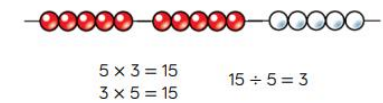
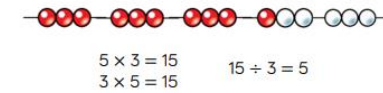
Bar Model



Number Shapes



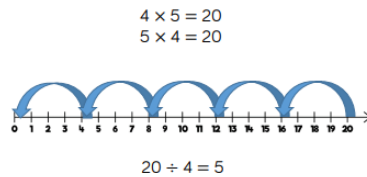
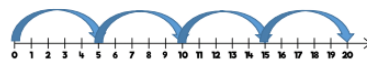
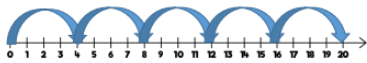
Bead Strings



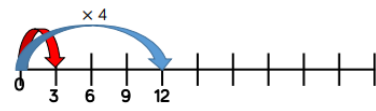
Number Tracks



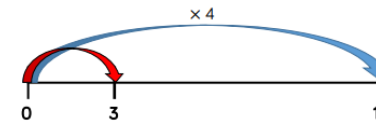
Number Lines (labelled)



Number Lines (blank)

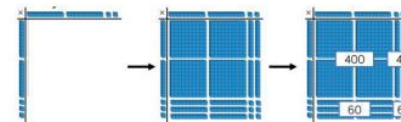
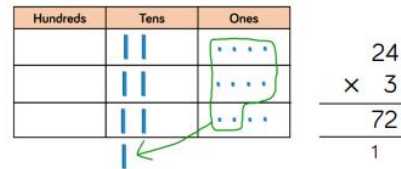


A red car travels 3 miles.
A blue car 4 times further.
How far does the blue car travel?

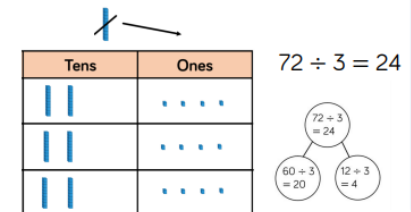


A blue car travels 12 miles.
A red car 4 times less.
How far does the red car travel?

Base 10/Dienes (multiplication)

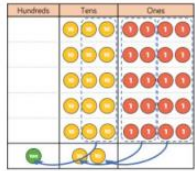


Base 10/Dienes (division)

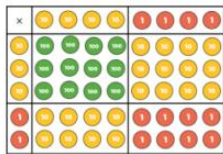
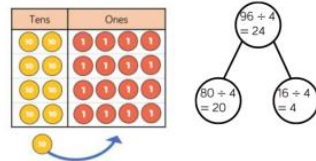


Place Value Counters (multiplication)

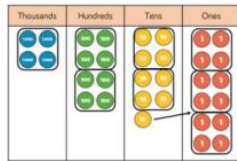
Place Value Counters (division)



$$\begin{array}{r} 34 \\ \times 5 \\ \hline 170 \\ 12 \end{array}$$



$$\begin{array}{r} 44 \\ \times 32 \\ \hline 88 \\ 132 \\ \hline 1408 \\ 1 \end{array}$$



$$\begin{array}{r} 1223 \\ 4 \overline{) 4892} \end{array}$$