## Multiplication and Division: The Distributive Law

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Aim:
Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
I can use my understanding of the distributive law to help me to solve problems.
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## Success Criteria:

I can explain what the distributive law is
I can solve equations with brackets in them by writing an equivalent calculation.

## Key/New Words:

Distributive law, brackets, array, equivalent, equation.

Resources:
Lesson Pack

## Preparation:

Differentiated Distributive Dilemma Activity Sheets - one per child Distributive Law Cards - cut up, one set per child in the * group

It will be helpful if the children know the multiplication tables up to $12 \times 12$, can use the written methods of multiplication and division and understand the meaning of the equals sign.

## Learning Sequence

|  | Arrays: Children write as many calculations as they can to describe the arrays on the Lesson Presentation. |  |
| :---: | :---: | :---: |
| $\infty$ | The Distributive Law: Use the example on the Lesson Presentation to explain the distributive law. |  |
|  | Make It Balance: Children check the calculations on the Lesson Presentation to ensure that the see-saws balance. | 0 |
|  | Banish the Brackets: Children write equivalent calculations without brackets to make the equations correct. |  |
|  | Subtraction: Children investigate whether it works if we use subtraction in the brackets. |  |
|  | Distributive Dilemma: Children complete differentiated Distributive Dilemma Activity Sheets, using their understanding of the distributive law to help them to solve multiplication and division problems. <br> Children sort the <br> Children solve <br> Children solve Distributive Law Cards multiplication and multiplication and to match the calculation division problems by division problems by (with brackets) with the writing the equivalent writing the equivalent pictorial representation, calculation (without calculation (without the equivalent calculation brackets) and finding the brackets) and finding the (without brackets) and answers. the answer. |  |
|  | Algebra: Solve problems where letters replace numbers in the equations. |  |

## Masterit

Makeit: Children play this super Algebra Dominoes game, then make their own dominoes game using equations with brackets.
Explainit: Children make a poster to explain how to use the distributive law to solve multiplication problems.

