

# Addition, Subtraction, Multiplication and Division: Bonkers Brackets (1)

<b>Aim:</b> Use their knowledge of the order of operations to carry out calculations involving the four operations.  I can explore the order of operations using brackets.	<b>Success Criteria:</b> I know the order of operations.  I know how the use of brackets affects the order of operations.  I can use the order of operations to work out and check calculations.	<b>Resources:</b> Lesson Pack
	<b>Key/New Words:</b> BODMAS, brackets, order, division, multiplication, addition, subtraction.	<b>Preparation:</b> 'True' or 'False' Statement Cards - 1 per class Differentiated Brackets Activity Sheet - 1 per pair Extra Challenge Activity Sheet - as required

**Prior Learning:** It will be helpful if children are familiar with methods of calculations for the four main operations (addition, subtraction, multiplication and division).

## Learning Sequence

	<b>Wham, Boom, Crack:</b> Split the class into two groups. Each group organises themselves into a circle. Ask children to go round the circle, counting in ones. Stop the children and inform them that if their number is a multiple of seven, they must say 'wham'. The game can be extended by adding another set of multiples using 'boom' and 'crack'. Stop the children and ask 'what will be the next 'wham' number?' 'Will any number be both 'boom' and 'crack'?', etc.	
	<b>Brackets in BODMAS:</b> Go through the slides from the Lesson Presentation to explain BODMAS and the use of brackets in mathematical calculations, giving examples. Repeat with additional examples if necessary.	
	<b>True or False:</b> Using the Lesson Presentation, the children work out if the calculation is correct, and then stand beside the correct 'True' or 'False' Statement Card. Can the children explain how they completed the calculation? Did the children use BODMAS? Did the children check their answer?	
	<b>Bonkers Brackets:</b> Explain to the children that they will be completing a range of questions that will require them to perform calculations using BODMAS. <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>In pairs, the children complete simple calculations involving brackets using the differentiated Brackets Activity Sheet.</p> </div> <div style="text-align: center;"> <p>In pairs, the children identify missing brackets to complete number sentences using the differentiated Brackets Activity Sheet.</p> </div> <div style="text-align: center;"> <p>Children complete a series of calculations including solving calculations with two lots of brackets (e.g. <math>(5 \times 3) (9 \div 3)</math>) using the differentiated Brackets Activity Sheet. An Extra Challenge Activity Sheet is provided as an extension activity if required.</p> </div> </div>	
	<b>Missing Operations:</b> As a whole class, children discover the missing operations required to complete the calculation.	

## Masterit

- Playit:** Children create their own set of top cards to practise BODMAS.
- Quizit:** Children create their own quiz for another group to practise BODMAS.
- Teachit:** Children teach another set of children about the concept of BODMAS. Children must prepare their own teaching material or use the Internet to find suitable resources.