Max’s Mathematical Order of Operations Challenge

Learning objective: To understand and apply the BIDMAS order of operations to solve multi-step calculations correctly.

Max the monkey has mixed up his number puzzles! Use the BIDMAS rule to help him solve these equations. Remember: Brackets, Indices, Division and Multiplication (from left to right), Addition and Subtraction (from left to right). Show your working out for each step.

Word bank: Brackets · Indices · Division · Multiplication · Addition · Subtraction · Operation · Equation

1. Explain what the acronym BIDMAS stands for and why it is important when solving a maths problem with more than one operation. (2 marks)

2. Solve the equation: 12 + (5 x 3) - 4. Write down your steps clearly. (2 marks)

3. Solve the equation: 20 - 3^2 + 6. Remember to calculate the index (squared number) first. (2 marks)

4. Max bought 3 notebooks for £2 each and a pen for £1. Write one calculation using BIDMAS to find the total cost, then solve it. (3 marks)

5. Create your own BIDMAS challenge for a partner. Write an equation that uses at least three different types of operations. (3 marks)

Extension challenge: Try to place brackets into the equation 4 + 5 x 2 - 1 so that the answer becomes 17, then try placing them differently so the answer becomes 9.