Max the Monkey's Mathematical Jungle Challenge

Learning objective: To identify, describe and classify numbers as factors and multiples, and identify common factors and prime numbers.

Read each question carefully. Show your working out clearly, just like Max does when he solves a puzzle! Remember to use your knowledge of times tables to help you.

Word bank: Factor · Multiple · Product · Prime Number · Composite Number · Common Factor

1. Max is sorting his bananas into equal groups. If he has 24 bananas, list all the factor pairs of 24. (2 marks)

2. Find the lowest common multiple (LCM) of 6 and 8. Show your method. (2 marks)

3. Identify the common factors of 12 and 18. Which is the highest common factor (HCF)? (2 marks)

4. Max says: 'All prime numbers are odd.' Is Max correct? Explain your reasoning using an example. (2 marks)

5. A shop sells boxes of stickers for £4 each. If a school spends exactly £48 on stickers, list three possible multiples of 4 that could represent the total cost if they bought more boxes. (2 marks)

Draw: Draw a tree in the jungle with 12 apples hanging from the branches. Group the apples into factors of 12 (e.g., 3 groups of 4 or 2 groups of 6) to show that you understand how factors work.

Extension challenge: Max has a secret number. It is a multiple of 5, a factor of 50, and it is an even number. What is the number? Can you write a similar riddle for a partner to solve?