

Max's Aquatic Maths and Safety Challenge

Learning objective: To understand swimming safety rules and calculate the costs of a swimming session while applying logic to pool scenarios.

Max the monkey is helping the local leisure centre manage their swimming sessions. Use your knowledge of water safety and arithmetic to solve the following challenges. For the calculations, ensure you show your working clearly.

Word bank: buoyancy · lifeguard · hypothermia · entry · supervision · acclimatisation · resistance

1. Max notices that an adult ticket costs £6.50 and a child ticket costs £4.25. If a family of two adults and three children go swimming, what is the total cost? Show your calculation. (2 marks)

2. Explain why it is vital to listen to the lifeguard's instructions immediately, even if you are an experienced swimmer. What might happen if a swimmer chooses to ignore these warnings? (3 marks)

3. Compare and contrast the risks of swimming in a controlled indoor pool versus an open lake or river. Why is the risk of hypothermia higher in natural bodies of water? (3 marks)

4. Max wants to buy goggles for £8.99 and a swimming cap for £2.50. He has a £20 note. How much change should he receive? Justify your answer with the correct subtraction. (2 marks)

5. If a pool is 25 metres long and you swim 8 lengths, what is the total distance you have travelled in kilometres? Explain your conversion. (3 marks)

6. Justify why 'acclimatisation' is a necessary step before diving into a cold outdoor swimming area. (2 marks)

Draw: Draw a diagram of a swimming pool area. Include at least three essential safety features (such as a life ring, a sign, or a designated lifeguard zone) and label them using the vocabulary provided in the word bank.



Extension challenge: Imagine you are designing a new community swimming pool. Write a short proposal (150 words) justifying why specific safety rules must be implemented to protect swimmers of all abilities. Consider the needs of younger children and the importance of supervision.