

PE Assessment: The Science of Warming Up

Learning objective: To understand the physiological importance of warming up and identify key components of an effective preparation routine for physical activity.

Read each question carefully. Max the monkey needs your help to explain why we prepare our bodies before exercise. Write your answers clearly in the spaces provided.

Max the monkey is getting ready for a big day of climbing and jumping. Before he starts his physical activity, he always spends ten minutes warming up his muscles and heart. He knows that jumping straight into a high-intensity activity can put his body under stress. By performing light movements, he prepares his heart, lungs, and joints for the effort to come.

Word bank: Pulse raiser · Stretches · Oxygen · Flexibility · Injury · Circulation · Temperature · Dynamic

1. Identify two reasons why it is important to perform a warm-up before participating in sports. (2 marks)

2. Max starts his warm-up with a 'pulse raiser'. Describe what happens to the body during this stage and why it is beneficial. (3 marks)

3. Explain the difference between 'static' stretches (holding a stretch still) and 'dynamic' stretches (moving while stretching). Which is more appropriate for a warm-up? (4 marks)

4. If Max is preparing for a football match, suggest one specific movement he could include in his warm-up and explain why it is relevant to the sport. (3 marks)

5. True or False: A warm-up should make you feel exhausted before the main activity begins. Explain your reasoning. (3 marks)

6. Max is designing a 10-minute warm-up routine for his class. Outline a structured plan including a pulse raiser, joint mobility exercises, and a sport-specific activity. Explain how these stages work together to prevent injury and improve performance (5 marks). (5 marks)

Draw: Draw a labelled diagram of a person performing a dynamic stretch. Label the muscles that are being prepared for action.



Extension challenge: Imagine you are a sports coach. Write a short paragraph explaining to a teammate why skipping a warm-up might affect their performance during the second half of a game. Total: /25