

Mindful Movement: The Science of Yoga with Nova

Learning objective: To understand the physical and mental benefits of yoga, and to demonstrate proficiency in core poses while maintaining balance and controlled breathing.

Read each question carefully. Use your knowledge of anatomy, balance, and controlled respiration to answer. When prompted, explain the physical mechanics behind the poses.

Nova the owl is preparing for her morning yoga session to improve her wing flexibility and core stability. Yoga is an ancient discipline that focuses on connecting the mind and body through specific poses (asanas) and rhythmic breathing (pranayama). By focusing on postural alignment, we can improve our musculoskeletal health and reach a state of calm equilibrium.

Word bank: Flexibility · Respiration · Core stability · Postural alignment · Mindfulness · Endurance · Musculoskeletal · Equilibrium

1. Nova explains that 'controlled respiration' is essential during yoga. Explain why focusing on slow, deep breaths helps the body perform better during a challenging pose. (2 marks)

2. Compare and contrast 'static' poses (holding a position still) with 'dynamic' movements (flowing between poses). Which do you think is more effective for developing muscular endurance? (3 marks)

3. When balancing on one leg, your core muscles must work hard to keep you upright. Justify why a strong 'core' is considered the foundation for all other yoga movements. (2 marks)

4. If a student finds a balance pose too difficult, suggest one modification they could make to their posture to regain their equilibrium. Explain your reasoning. (2 marks)

5. What might happen to your body's flexibility if you practiced yoga consistently for six months? Use the term 'musculoskeletal' in your answer. (2 marks)

Draw: Draw a diagram of your favourite yoga pose. Label the muscles you think are being stretched and the muscles you think are working to keep you balanced.



Extension challenge: Design a 3-step 'Yoga Flow' sequence. Give your sequence a name and write a short paragraph explaining how you would transition from one pose to the next while maintaining a steady, rhythmic breathing pattern.