2.3 Movement Analysis: Planes and Axes of Movement: 10-minute Pack

AQA 8582 · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Which plane of movement divides the body into left and right sides?

- ☐ A) The sagittal plane
- ☐ B) The frontal plane
- ☐ C) The transverse plane
- ☐ D) The longitudinal plane

(Total for Question 1 is 1 mark)

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2 Discuss how knowledge of planes and axes helps a coach analyse the different skills in Priya's routine, referring to at least two of her named skills, and evaluate why a skill that combines two rotations (such as the barani) is more demanding to analyse than a skill involving only one plane of movement.

(Total for Question 2 is 9 marks)

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3 A javelin thrower rotates their trunk rapidly during the delivery stride, twisting the shoulders and hips around the body's own long axis to generate throwing power. Identify the plane and axis of movement.

(Total for Question 3 is 2 marks)

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Mark scheme · 2.3 Movement Analysis: Planes and Axes of Movement: 10-minute Pack

Question 1

A	**B1**

Answer: A

Question 2

Level 3 A detailed and coherent response that accurately identifies the plane and axis for at least two of Priya's named skills, explains how this knowledge helps a coach analyse technique, and gives a well-justified evaluation of why combined-rotation skills such as the barani are more demanding to analyse. Sustained, accurate use of plane/axis terminology throughout.	**7-9**
Level 2 Some accurate identification of plane and axis for Priya's skills, with some explanation of its use to a coach, but coverage of two or more skills or the evaluative point about combined-rotation skills may be incomplete or underdeveloped.	**4-6**
Level 1 Basic or generic statements about planes and axes with little or no application to Priya's specific skills, and little or no evaluation.	**1-3**
Level 0 No relevant content.	**0**

Indicative content:

- The straight forward somersault takes place in the sagittal plane, rotating about the transverse axis.
- The pirouette-style twist takes place in the transverse plane, rotating about the longitudinal axis.
- The barani combines both: a somersault (sagittal plane, transverse axis) and a twist (transverse plane, longitudinal axis) performed at the same time.
- Coaching use: naming the correct plane and axis lets a coach describe exactly which body rotation needs coaching (e.g. whether a fault is in the somersault rotation or the twisting rotation), rather than giving vague feedback.
- Coaching use: understanding planes and axes also helps a coach spot timing faults, such as starting the twist too early or too late relative to the somersault rotation.
- Evaluative point: a single-plane skill (the straight somersault, or the pure twist) only requires analysing rotation about one axis, which is comparatively simple to observe and coach.
- Evaluative point: a combined skill such as the barani requires the coach to track two separate rotations, about two different axes, happening simultaneously, which is harder to observe, describe and correct than a single rotation.
- Balanced conclusion: the more planes and axes involved in a skill, the more separate elements of technique a coach must analyse at once, which is why multi-axis skills are generally considered more technically demanding to learn and to coach.

Question 3

transverse plane	**B1**
longitudinal axis	**B1**

Answer: Transverse plane, rotating about the longitudinal axis.

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