Your notes

GCSE PE: revision notes

Planes and axes of movement

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What planes and axes are

- A **plane** is an imaginary flat surface that divides the body. An **axis** is an imaginary line that the body or a body part rotates around.
- Movements happen in a **plane** and around an **axis** at right angles to it.

The three planes and axes

- **Sagittal plane**, around the frontal **axis**: divides the body into left and right. Movements are flexion and extension, such as running, walking, a squat or a front somersault.
- **Frontal plane**, around the sagittal **axis**: divides the body into front and back. Movements are abduction and adduction, such as a star jump or a cartwheel.
- **Transverse plane**, around the **longitudinal axis**: divides the body into top and bottom. Movements are rotations, such as a full twist jump, a golf swing or a discus throw.

Using them in exam answers

- Name the **plane** and **axis** together: "a front somersault happens in the **sagittal plane** about the frontal axis".
- Link the movement to the **plane**: flexion and extension go with the **sagittal plane**; abduction and adduction with the **frontal plane**; rotation with the transverse plane.

Key terms

Plane	An imaginary flat surface that divides the body into two parts.
Axis	An imaginary line around which the body rotates.
Sagittal plane	Divides the body into left and right; flexion and extension happen in it.

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Frontal plane	Divides the body into front and back; abduction and adduction happen in it.
Transverse plane	Divides the body into top and bottom; rotation happens in it.
Longitudinal axis	A line running from head to toe, around which the body twists.

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

1. In which plane does a front somersault happen?
2. Around which axis does a cartwheel happen?
3. Around which axis does a full twist jump happen?
4. Which movements happen in the sagittal plane?
5. Which movements happen in the frontal plane?
6. Which plane divides the body into top and bottom halves?
7. Which plane divides the body into front and back?
8. In which plane and axis does running happen?

Answers

1. Sagittal plane
2. Sagittal axis
3. Longitudinal axis
4. Flexion and extension
5. Abduction and adduction
6. Transverse plane
7. Frontal plane
8. Sagittal plane about the frontal axis

What to do next

Practise 11 questions on this topic

Try 4 exam questions, with mark schemes

Read the lesson, one step at a time

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