Learning Resource

Movement Analysis

TASKS, QUESTIONS & ANSWERS

43 pages

INTRODUCTION
EXAMPLES OF MAJOR MOVEMENTS FROM A VARIETY OF SPORTS ARE ANALYSED IN TERMS OF THE MUSCLES, BONES, JOINTS ACTIONS INVOLVED IN A NUMBER OF TASKS IN WHICH QUESTIONS AND ANSWERS ARE EMBEDDED TO AID AND TEST UNDERSTANDING.

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Movement analysis

Task 1 Analysis of Breastroke

a Observe a video or a drawn action sequence of a performer swimming breaststroke. Read through the following description of the techniques and answer the questions concerning the movements involved in the spaces provided.

In breaststroke, the pull of the arms consists of an outward and inward sculling motion of the hands. Each hand follows the same line. From the side, the body is streamlined (straight) and submerged with the head facing down.

b Name the muscles in the back that keep the body in this streamlined position:

Erector spinae

The thighs move upward to lift the legs, the hands scull to a point just wide of the shoulders. The head and shoulders, in unison lift gradually.

c As the thighs move upward, what action is involved at the hips, and which muscles are involved? What are the origins and insertions of these muscles?

	Hip joint
Action =	Flexion
Main agonist 1 =	Iliopsoas
Origin =	Lumbar vertebrae & Iliac crest
Insertion =	Femur
Main agonist 2 =	Rectus femoris
Origin =	Iliac spine
Insertion =	Patella tendon

d Name the bones that form the hip joint and the type of joint involved.

	Hip joint
Bones	Femur & Ischium of pelvic girdle
Type of joint	Ball & Socket