Lesson 1 on jumps (part 1)

Now that we've done some running, it's time to do some jumping. Athletics jumps are another aspect of our encounter with the "Queen of Sports."

Slide 2 Athletics jumps have their origins in ancient times, where they appeared as additional competitions in the rivalry of the brave. By jump, we mean the action of lifting oneself off the surface with the legs. Among the disciplines related to jumping, we distinguish 4 events:

* long jump
* triple jump
* high jump
* pole vault During today's session, we will focus on the first two events.

Slide 3 Long Jump This event involves the athlete executing a jump consisting of a run-up, takeoff from the board, and a jump into the sand-filled pit. There is clay on the board at the edge, indicating where the athlete took off and whether the jump is fouled (meaning if the board line is crossed).

Slide 4-5 The long jump has its roots in ancient Greece, where it was part of the pentathlon and was called "halma." As part of training, boys and girls would jump with weights ranging from 3-7 kg in their hands to achieve better results. In the Middle Ages, long jumps were one of the attractions meant to provide entertainment during various events and festivals. In 1850, the first regulations governing this event were established. Back then, athletes used the squat technique, meaning after the takeoff, the legs were bent toward the chest. In 1901, the running technique was first used for jumping, which is still the most recognized technique today. The running technique involves utilizing speed in the run-up and the force of takeoff. Irishman Peter O’Connor achieved an excellent result of 7.61 m (1901), setting the first official world record using this technique.

Slide 6 (Olympic Games flag) Long Jump at competitions. Long jump appeared at the Olympic Games in 1896 as a men's event. Women competed at this level only in 1948. In the European Championships, men competed for the first time in 1934, while women did in 1938. In the Polish Championships, this event appeared in the men's edition in 1920 and two years later (1922) in the women's edition.

Slide 7 Long Jump Technique Long jump consists of 4 phases:

1. Run-up phase
2. Takeoff phase
3. Flight phase
4. Landing phase

Slide 8 (Athlete running on the run-up) The run-up during the long jump is individually tailored to the athlete. It must be long enough for the jumper to reach maximum speed at takeoff. The running technique involves lifting the knees high, maintaining an upright body position, and a higher hip position. The last two steps are crucial; the second to last is extended, while the last one is shortened to facilitate takeoff. The foot on the board is placed with the entire sole, and the torso is slightly tilted backward.

Slide 9-10 (Athlete taking off from the board) The takeoff begins when the foot touches the board. During this phase, the athlete has straightened hip, knee, and ankle joints.



The trailing leg is bent at the knee. The athlete's body is slightly tilted, and the swing upward is synchronized with the trailing leg.

Slide 11-12 (Athlete in flight) The flight phase lasts several seconds. It is the result of the run-up and takeoff, and the actions performed in this phase are called compensatory movements. We distinguish 3 flight phase techniques: A. Squat (natural) technique - the athlete assumes a position where the knees are brought to the chest (most commonly chosen by beginner jumpers). B. Running technique - a technique resembling running, and in flight, the athlete can perform 2.5 or 3.5 steps (considered the most difficult). C. Chest technique - the athlete assumes a kneeling position (intended for advanced athletes).



1-3 - run-up 4-6 - takeoff 7-10 - flight 11-13 - landing

Slide 13-14 Task. Try to perform one jump using each technique.

Slide 15 (Athlete landing) When the athlete reaches the highest point of the jump, the landing phase begins. During this phase, the athlete energetically throws the legs forward, moves the arms backward, and leans the body forward. We distinguish 3 landing methods: A. Squat or half-squat - the easiest and most popular among beginner athletes. It involves bending the legs at the hip and knee joints after the feet touch the sand. The position of the arms compensates for balance. B. Slide - after the feet touch the sand, the hips take their place, while the feet and shins are thrown upward and forward. C. Twist - this method is chosen by experienced athletes as it is the most difficult. After the feet touch the sand, the entire body (hips, legs, torso, and arms) is shifted to the side, beyond the last mark.

Slide 16 Measurement of the long jump During competitions, the measurement of the jump is made from the takeoff point on the board to the last mark in the sand (measured at a right angle). The winner is the athlete who achieves the longest jump.



Each athlete gets 3 attempts. The winner is the jumper with the longest jump.

Slide 17-19 (Calendar page) Triple jump, like long jump, was known in ancient Greece. It was present as a men's event at the first Olympic Games (1896, Athens). As a women's discipline, the triple jump was contested in Atlanta in 1996.

Slide 20-22 (Photo comparing long jump and triple jump athletes - below is an example) This is another competition where the athlete must execute a jump into the sand pit. What differentiates it technically from the long jump is that before the flight phase, the athlete must perform 3 consecutive jumps:



1. First

* takeoff from one leg and landing on the same leg;
* it's quite flat;
* during takeoff, the athlete straightens the hip, knee, and ankle joints;
* after takeoff, the takeoff leg is energetically brought forward, and arm movement supports the entire body;
* body in an upright position.

1. Second

* landing on the opposite leg;
* foot planted with the entire sole;
* quick takeoff from the same leg on which the athlete landed;
* arms support the entire body;
* simultaneous transfer of the bent opposite leg forward with the knee.

1. Third

* combination and transfer of the takeoff leg and opposite leg forward parallel to the ground;
* landing on both feet in the sand pit. Two first jumps take place on the track. The phases of the run-up, takeoff, landing, and measurement are the same as in the long jump.



Slide 23 Trivia

1. During athletics competitions between Oxford and Cambridge universities (considered the beginning of modern athletics), the long jump was one of the eight contested events.
2. Athletes' results are often better when competitions take place outdoors (favorable wind). Many times, new records have not been recognized due to strong winds.
3. The distance from the board to the sand pit in international competitions is 13 m for men and 11 m for women.
4. Polish record in the long jump: Men - 8.16 m set by Krzysztof Łuczak in 1997. Women - 6.97 m set by Agata Kaczmarek in 1988.
5. Polish record in the triple jump: Men - 17.53 m set by Zdzisław Hoffmann on June 4, 1985. Women - 14.44 m set by Małgorzata Trybańska on July 29, 2010.

Slide 14 Test - Partially closed (Correct answers marked in red)

1. What types of jumps have you learned during today's lesson? A. Long jump B) high jump C) triple jump
2. Since when has the men's long jump been contested at the Olympic Games? A. 1850 B) 1896 C) 1948
3. Since when has the women's triple jump become an Olympic discipline? A. 1896 B) 1992 C) 1996
4. Name 4 phases of the long jump (run-up, takeoff, flight, landing)
5. Name 3 flight phase techniques in the long jump (natural - squat, running, chest)
6. Which landing technique in the long jump is the most difficult? A. squat B) slide C) twist
7. Name the Polish record holders in the long jump and triple jump and provide the distances of their jumps. (Long jump: Krzysztof Łuczak (8.16 m), Agata Kaczmarek (6.97 m); Triple jump: Zdzisław Hoffmann (17.53 m), Małgorzata Trybańska (14.44 m))
8. How does the triple jump differ from the long jump (In the triple jump, the athlete performs additional takeoffs during the run-up)
9. What could be the reason for not recognizing a record-breaking jump? A. too strong headwind B) too strong crosswind C) too strong tailwind
10. How many meters from the sand pit is the board positioned in the women's triple jump? A. 13 m B) 12 m C) 11 m

Task. Measure your long jump a. From a standstill b. From a few meters run-up Answer the question: Which jump was longer and why? (It should come out that the longer jump was from the run-up because the force of the run affected its length)