

Let us learn about jumping and throwing events in athletics

Under the classification of athletics events long jump and triple jump can be identified as horizontal jumps while high jump and pole vault come under vertical jumps. The shot put, the discus, the javelin and the hammer are the throwing events in athletics.

Out of these events, we learnt about long jump, high jump, throwing the shot put, and the discus in grade 10.

In this lesson we will learn about triple jump and throwing the javelin and engage in practical activities related to those two events.

Triple jump

Triple jump is a horizontal jump among athletics events. A great deal of energy and tremendous momentum are needed for triple jump that consists of three jumps. It is essential that a speed that can be controlled when reaching the take-off board is maintained while the speed should not be allowed to be reduced in all the three jumps.



Figure 12.1 - Triple jump

Triple jump, which consists of three jumping phases namely, hop, step and jump, has altogether five phases as a whole.

1. Approach run
2. Hop
3. Step
4. Jump
5. Landing

In triple jump, the second take-off should be made using the same foot that was used for the first take-off while the third take-off should be made with the leg opposite to that. Finally the landing should be made with both legs.

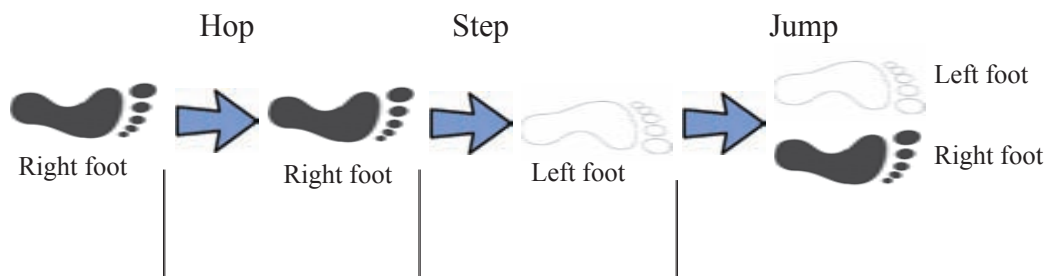


Figure 12.2 – Taking off on the right foot

Let us study the footwork of an athlete who takes off on the right leg.

Approach run



Figure 12.3 - Approach run

- The distance that is needed for the approach run varies from athlete to athlete. Beginners may use about ten steps while expert, trained athletes usually use about 17 – 20 steps.
- During the approach run, the body should be kept relaxed and straight and the running should be done raising the knee upwards.

Hop (the first jump)



Figure 12.4 - Hop

- The foot should be placed on the take-off board and the take-off should be made exerting pressure on the board.
- Unlike in the long jump, the distance of the first jump of the triple jump should not be made as long as possible.
- The take-off leg should be extended forwards.
- Balance of the body should be maintained.
- The two arms should swing backwards.
- At this position the take-off leg is completely straightened.

Step (Second jump)



Figure 12.5 - Step

- At the step phase, take-off should be made using the same foot that was used for the 'hop'.
- Hands should be swung well.
- In the case of a right leg dominant athlete, the take-off is made by pressing the right foot against the ground.
- The left leg of the athlete is further raised.
- Then the left foot is lowered and the landing is done with the left foot.

Jump



Figure 12.6 - Jump

- At the third jump phase, the body of the athlete should be raised.
- The thigh of the right leg reaches a level that is parallel to the ground.
- At the flight phase, the hang or the sail technique is used.
- Towards the end of the flight phase, the body is prepared for the landing.
- The upper body is leaned forwards and the two legs are straightened and extended forwards. The two hands are extended forwards.

Landing



Figure 12.7 - Landing

- The legs that have been straightened are bent at the knees as the feet touch the ground.
- The athlete moves forwards in a sitting posture.
- The hands should be rotated forwards very fast.

The triple jump runway and landing pit

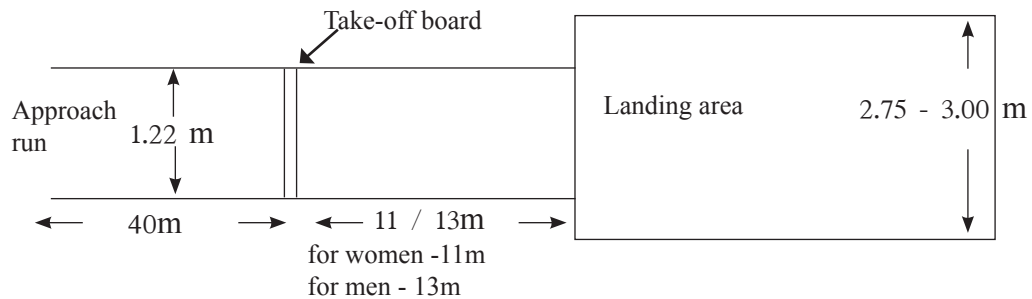


Figure 12.8 - Triple jump runway and landing pit

Training exercises for triple jump



Figure 12.9 - Training exercises

1.
 - Place in some limited area a few cardboard boxes or similar objects that are not very high and that do not pose any danger, and run about the area freely jumping over those obstacles.
 - When jumping over the obstacles the landing should be done with the same foot that was used to make the take-off.
2. Mark some area on the ground and move about in that area by jumping forwards keeping to the hop, step and jump order.
3. Mark a frame of lines and practice the three phases of the triple jump, hop, step and jump.

Rules and regulations of triple jump

- The triple jump should consist of the three phases hop, step and jump consecutively.
- At the hop phase, the landing should be made with the same foot that was used for the take-off and at the step phase landing should be made with the opposite foot and the same foot should be used for the take-off for the jump.
- If the free leg touches the ground during jump, it is not considered a fowl jump
- In addition to the rules and regulations given above, the rules and regulations for long jump are applied to the triple jump, too.

Javelin throw

When you were in grade 10 you learnt about the shot put and the discus which comes under field events according to the classification of athletics.

Javelin throw, too, comes under throwing events. Out of the equipment used for putting and throwing events, javelin is a piece of comparatively lower-weight equipment. The javelin is thrown by using the power that is gained by running.

As the shot put, throwing the discus and the javelin are events that involve dangers. Therefore training of those events and holding competitions should be done only under the supervision of teachers.

Javelin throw technique

Javelin throw technique can be divided into 7 phases:

1. preparation
2. approach run
3. pulling the javelin backwards
4. crossover
5. power position
6. delivery
7. recovery (Follow through)

1. Preparation



Figure 12.10 - Preparation

- The javelin thrower should stand facing the direction in which the javelin is to be thrown.
- The javelin should be held over the shoulder just above the ear so that the javelin remains parallel to the ground.
- The elbow of the hand in which the javelin is held should be directed towards the front.

2. Approach run



Figure 12.11 - Approach run

- The thrower runs rhythmically carrying the javelin in order to gain initial momentum.
- Javelin throwers may run about 13 – 19 steps for this while beginners may run about 6 – 12 steps.

3. Pulling the javelin backwards



Figure 12.12 - Pulling the javelin backwards

- With the first of the last five steps of the approach run, the thrower begins to pull the hand in which the javelin is held backwards behind the shoulder.
- At the third of the last five steps, the javelin is completely pulled backwards.
- The javelin that is pulled backwards is held inclined with the head.

4. Crossover



Figure 12.13 - Crossover

- The crossover is done at the penultimate step. (last four steps)
- The hand in which the javelin is held is straightened
- The foot corresponding to the hand in which the javelin is held is moved forwards with a long stride after the crossover. (according to the given picture, the right foot)
- The left foot is moved forwards once again.

5. Power position



Figure 12.14 - Power position

- When the fourth step ends the power position starts.
- At the power position the body is leaned a little backwards.
- The javelin is held in the right hand and the left leg is straightened well towards the front.

6. Delivery



Figure 12.15 - Delivery

- The javelin is launched from over the head so that the point of the javelin is raised.
- The hip is turned forwards vigorously.
- The front foot is straightened at the knee.
- The javelin is launched by pulling forwards and upwards the elbow of the hand holding the javelin.
- When the javelin is released, the back of the thrower is bent like a bow as shown in figure 12.15

7. Recovery (Follow through)



Figure 12.16 - Follow through

- After the javelin has been thrown, the right foot is put in the front and the thrower's speed is controlled.
- The upper body is bent forwards and the body balance is maintained.

Exercises for practicing javelin throw

1.



Figure 12.17

Throw to a distance from over the head a light ball such as a tennis ball.

2.

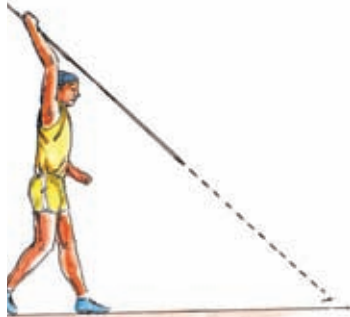


Figure 12.18

Pull the javelin backwards over the head and throw it hard onto the ground so that the point of the javelin hits the ground about 3 – 4 metres ahead.

3. Throw the javelin staying at the power position.
4. Practise throwing the javelin following the last three phases of the javelin throw technique described above.

In addition to these, do more javelin throw training exercises with the help of your teacher.

The field for javelin throw

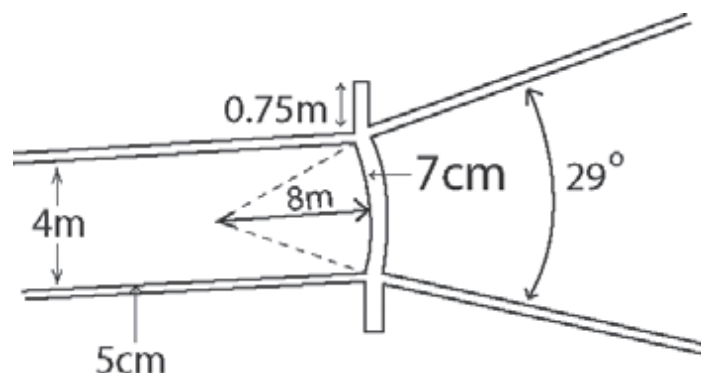


Figure 12.19 - The field for javelin throw

- The minimum distance of the javelin throw runway should be 30 metres.
- The angle between the sector lines should be 29° .

Age-wise weight of the javelin used in all island school athletics competitions in Sri Lanka

Table 12.1

Age limit	Boys	Girls
Under 16 years	600g	500g
Under 18 years	700g	500g
Under 20 years	800g	600g

(New values introduced in circular 2016/34)



Activity

Learn from your teacher the weights of the javelin used in international competitions and tabulate them.

Some rules and regulations of javelin throw

1. The javelin should be held from the grip with single hand.
2. The javelin should be thrown over the shoulder and above the forearm. Chucking or throwing the javelin outside the standard technique is not allowed.
3. The metal point of the javelin should hit the ground first before any other part of the javelin touches the ground.
4. After the competition has started, the playground and the sector where the javelin lands are not allowed to be used for training purposes.
5. The javelin should land inside the angle of the landing area.
6. The thrower should remain within the limits of the throwing area until the javelin has landed.
7. The thrower should start making his attempt within one minute after the number of the thrower has been announced.
8. Before releasing the javelin, the athlete should not make a complete turn of the body at any point of the throwing process so that the thrower's back faces the throwing area.

Summary

The technique for triple jump, which is a horizontal jump in athletics, consists of five phases. They are the approach run, hop, step, jump and landing.

The technique for javelin throw, which is one of the throwing events, can be studied under seven phases. They are preparation, approach run, pulling the javelin backwards, crossover, power position, delivery and recovery.

It is essential that athletes engage in training exercises for all of the above events.

Exercise

1. Name the three jumps that constitute triple jump.
2. Write two rules that relate to triple jump.
3. Write the seven phases of the technique that is adopted in javelin throw.
4. Write five rules applied in javelin throw.