

Category of Activity: Athletic Activities

Name of Activity: Putting the Shot

Shot put is a track and field event, which involves putting (throwing in a pushing motion). A heavy metal spherical ball called 'Shot', as far as possible. The shot is generally made of solid iron or brass although any metal not softer than brass may be used. The shot is thrown from inside a circle which is 2.135 mts. (7 ft.) in diameter having a 10 cm high stop board in front of the circle. The distance is measured from inside of the circumference of the circle to the nearest mark made on the ground by the fall of the shot. Distance is rounded off to the nearest centimeter.

Rules of the Event

- Thrower must rest the shot close to the neck.
- Shot must be kept tight to the neck through out the motion.
- Shot must be released above the shoulder, while using only one hand.
- Thrower must not touch the top or outside ground of the circle or stop board. His limbs may however extend over the lines of the circle.
- Shot must land in the sector of the throwing area (34.92°).
- Thrower must exit from the back of the circle, after the shot has landed.
- Thrower must start his throwing motion within 60 seconds of calling his/her name.
- Usually three attempts will be given to all participants & best 8 will be given 3 more attempts. Best throw will be used for performance ranking.

History of the Event

Shotput originated from ancient Greece in 776 BCE. It is believed that the game originated from the Scottish stone throw to kill Romans. It is also believed that originally the event was done by using stone balls to the British Isles. In Scotland stone throwing events were organised in pre-Christian times, as a way of determining which Clieftain was most powerful and had most military might. This eventually became a part of actual Highland games programmes, organised every August in Scotland since 11th century.

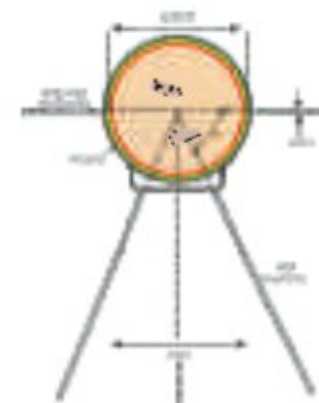
In the middle ages there is enough evidence to show that an event closely related to this sport existed, where participants hurled canon balls as a feat of strength. It seems the word 'Shot' came from the canon balls and 'Putt' must have come from the throwing style that was used. The sport remained popular among soldiers throughout 18th century there have been a few changes in the style of throwing in all these years. In the olden times the thrower used to stand on a wooden rectangle to throw, if he went out of it he fouled and his throw was discounted. At that time standing throw was only option until rectangle was replaced by a seven feet circle, the glide technique developed and then it was Randy Barnes one of the best shot putters who introduced rotational type of throw in 1976 at Montreal Olympics.

Facts about the Event

- Shotput competitions are being held in Olympic games for men since its inception in 1896.
- The event for women was added in 1948 Olympic program.
- Men's shot weighs about 7.260 kg. (16.01 lbs) and women's shot weighs about 4 kg. (8.8 lbs).
- Throwing a shot not only involves much technique and strength but also a few physics concepts.
- It needs good initial velocity and release of shot at 40° approx. to reach the farthest.

Basic Requirements/ Equipment

- A throwing area that has a safe surface for throwing.
- A shotput arena having a circle with an iron rim.
- High barriers for throwing over.
- A stop board.
- Boxes or benches on which students can sit.
- Students should be suitably dressed to undertake the activity safely.
- Lime Powder, Measuring tape.
- When working with large numbers of students use the landing area with great caution.



Use STEP to modify Shotput activities so that all students are included. Try these modifications or devise your own.

- Space**
- Increase or decrease the diameter of the circle good throwers should use smaller circles and swift movement, lesser able students should use larger circles and gain momentum.
 - Give students enough time to practice each type of throw, the momentum needed for them to push the shot with a greater effort.

- Task**
- Establish balance and weight transference skills before introducing throw.
 - Some students will be successful at throws if they are able to perform throw from standing positions.
 - In the initial stages allow students to push the shot standing position with facing the throwing arena.
 - Wheelchair users can also take the throw while being stationery or by moving the chair within the scheduled arena.
 - Substitute throwing upwards by placing barriers of different height to increase the parabolic angle of the shot in air.

- Equipment**
- Use objects of different shapes, sizes and weights.
 - Use medicine balls.
 - Allow students to support to help them in achieving throwing action.

- People**
- Find a way of ensure that all students play an active role in the throwing activity.
 - All students can improve their own ability to perform at their maximum level through throwing activities regardless of the distances or ways in which they might throw.

Physical & Health Education /Games

Links to continuous and comprehensive assessment frame work for classes IX and X

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| <ul style="list-style-type: none"> • An appreciation and understanding of the physical fitness requirements of athletic activities. • An involvement in sports/physical education programmes. • Team work. • A knowledge of different athletic events and their rules. | <ul style="list-style-type: none"> • Skills of agility, balance and coordination. • Motivation and commitment to take part in athletics. • Ability to lead others as a team captain, coach, timekeeper or judge. • An awareness of rules of safety. • An evidence of being self disciplined. |
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- Life Skills**
- Listen actively.
 - Takes criticism positively.

- Communicate using appropriate words, intonation and body language.
- Identifies one's own strengths and weaknesses.





Purpose of the activity

To participate in events that require students to go further, higher and faster.

Outcome of the activities

- The outcomes of participating in these activities will be
- a commitment to training
 - willing to concentrate and practise to improve
 - an ability to set and meet personal targets

Standing Throw

Grip

- Pick the shot.
- Place it at the base of first three fingers evenly spread out not stretched.
- Little finger and thumb supporting the shot.
- Place the shot under the chin with elbow held high.



Standing Throw

- Hold the shot at the base of first three fingers with little finger and thumb supporting it.
- Stand with feet shoulder width apart facing the direction of the throw.
- Push the shot using the arm only keeping the elbow high.



Twist and Throw

- Stand with feet wide apart. Body square to the target area.
- Weight over the right foot. Chin-knee-toe being vertically in the line. Feet and hips facing at the side. Shoulder cocked to the rear.
- Move right leg driving the right hip to the front.
- Transform the body weight from the right leg to the left leg. Bring left arm forward at the same time. Pointing towards trajectory line.
- Release the shot at 45°.



Glide

Stance

- Put the shot firmly against your neck and under your chin.
- Thumb being under the shot with throwing elbow pointing or outwards.
- Stand at the back of the circle facing away from the direction of the throw. Right foot near the back edge of the circle with left leg extended forward.



Seated Position

- Bend your knees as if you are moving to a seating position while keeping most of your body weight on the right foot.



Glide

- Extend your left leg towards the target area and push off with your right foot.
- Glide to the front of the circle, while keeping your center of mass low.
- Your feet should land simultaneously, left foot in front of the circle just behind the toe board and slightly left of the center.
- Right foot in the middle of the circle. Weight on your right leg and knee should be bent approx. at 75°.



Power Position

- Thrower now should be in power position.
- Feet shoulder width apart left arm extended from the body. Knees bent.



Atheletic Activities Putting the Shot

Class VI-VIII

COMPETENCY LEVEL



Pivot

- Keep your right elbow up as you shift your weight to the left.
- Straighten your left leg as you rotate your hips, so that they are square to the target.



Throw

- Keep your left side firm.
- Punch your right arm upwards.
- Complete the throw with a flip of your wrist.
- And a strong follow throw. Please remember, your throw's power begins in your legs, flows upwards through your hips, back and arm.



Now make up your own events and have some fun

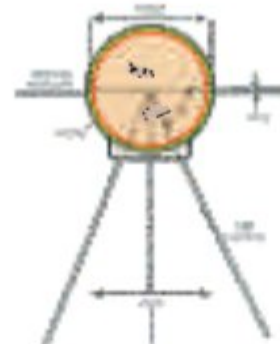
Set up a class or group competition. How far you can throw from a line, closed triangular space? Measure the distance of each participant.

Assessment

Knowledge (4)	<ul style="list-style-type: none"> • History of the activity • Rules of Shot putt • Facts
Skills (6)	<ul style="list-style-type: none"> • Grip • Style • Stance • Follow through
Application of skills (10)	<ul style="list-style-type: none"> • Effective approach • Glide technique • Pivot • Controlled follow through • Distance of the throw

Here are some practices

- Place a medicine ball closer to the stop board. Thrower tries to hit the ball by the outer side of the left foot and also shift his right leg backward.
- Putter should not jump while taking the glide, body must be bent from the trunk looking in front.
- Both feet must land on the center of the line, and the heel off the right foot and toe of the left foot coming in a same line.



Try these challenges

In teams of 3 or 4.

- How many throws does it take, your team to throw a distance of 20 metres? Thrower 1 throws, Thrower 2 throws from the place where previous student had putt the shot. Followed by Thrower 3, then 4 etc.
- Each Thrower chooses a different style of throwing (for example, 1st thrower stands facing the target and throws, 2nd thrower faces side words and throws and the 3rd thrower with his back facing the throwing area.

Links to NCERT syllabus

Theme: Health and physical fitness and orientation to sports skills

Links to other subjects

Maths: Ratio of weights, amount of effort apply can be calculated.

Science: Advantages of different body levers in sports and daily life. Concept of pivoting and transforming muscular force.

Atheletic Activities

Putting the Shot

Class IX - X

PROFICIENCY LEVEL



Purpose of the activity

To participate in events that require students to go further, higher and faster.

Outcome of the activities

The outcomes of participating in these activities will be

- a commitment to training
- willing to concentrate and practise to improve
- an ability to set and meet personal targets

Rotational Technique

Grip and Hold

- Grip the shot on the base of your fingers not on the palm. Spread your fingers slightly.
- Hold the shot closer to the ear.
- Thumb under the shot.
- Throwing elbow pointed outward away from your body.



Stacne

- Stand at the back of the circle.
- Facing away from the target.
- Feet shoulder width apart body upright.
- Head up, extend your left arm.



Wind up

- Rotate your body about $\frac{1}{4}$ turned to the right.
- Your right elbow will point towards the target.
- Keep shoulder level as you rotate, pivot on your right foot. Keeping the left foot flat on the ground.
- Rotate the left leg so that your knee moves slightly towards right.
- Balance on the ball of your left foot.
- Move your left arm in sync with your left leg.



Entry phase I

- Shift your weight to your left as you pivot on, and turn your left foot.
- Bend your left knee slightly and flatten your left foot as you transfer the center of gravity to your left side.
- Begin push off with your right foot.
- So that you are on the ball of the foot.



Entry Phase II

- As your center of gravity shifts to your left side. Continue pushing with your right foot.
- Lift your left foot of the ground and begin sweeping it anti clockwise.
- Pivot and turn your left leg.
- Go back on the ball of your left foot as you pivot moving your upper and lower body together.
- Keep your left arm extended to counter balance the sweeping right leg. Which will extend past the right side of the circle.



Drive Phase I

- Continue sweeping your right leg around until it lands in the center of the circle towards the right foot.
- Your right elbow will be pointed towards the target and your right knee bent.
- Bend your left arm at the elbow. Bring your forearm closer to the body.
- Left your left leg and circle it towards the front of the ring. Do not slow down.





Drive Phase II

- Left leg lands in the center of the circle. Your foot should be flat & your leg firm with very little bend in the knees.
- Left arm extend towards target, then reaches up lifting your left shoulder.



Power Position

- Left arm should be pointed towards the target with your left leg straight and right knee bent.
- Right shoulder should be lower than the left, with your right forearm roughly parallel to the ground.
- Your weight should be over your right foot.
- Do not stop in this position.
- Continue rotating, because your rotation's momentum helps to power the shot.



Delivery

- As your left foot lands continue shifting your weight on the left foot.
- As you do so, punch your throwing arm up at approx. 45° angle, pushing off with your right leg as you release the shot forward.



Follow Through

- Good follow through is essential to maintain your momentum through out the delivery and keeping your balance afterwards.
- As you push off with your right foot, lift your left leg and pivot on your left foot.
- When your foot lands, hope on the foot and keep spinning.
- Keep your balance otherwise every thing you have done so far will be wasted if you fall out of the circle and foul.



Now make up your own games and have some fun

- Compete against yourself combining the total distance of glide and spin throw.
- Compete against others in athletic competitions organised by students. Can you act as judge, umpire, referee and recorders?
- Can you create a new throwing competition? What other ways might you combine and approach with the throw?

Assessment

Knowledge (4)	<ul style="list-style-type: none"> • History of the activity • Rules of Shot putt • Facts
Skills (6)	<ul style="list-style-type: none"> • Grip • Style • Stance • Follow through
Application of skills (10)	<ul style="list-style-type: none"> • Effective approach • Peri - O - Berian technique • Pivot • Controlled follow through • Distance of the throw

Links to NCERT syllabus

Theme: Orientation to physical education and sports education: sports and games

Links to other subjects

Maths: Trigonometry can be applied to calculate horizontal distance, picture of release angles.

Science: Preliminary swings shows, how to break the inertia, circular movements generates centrifugal and centripetal forces, transformation of energy from body to the shot. Newton laws can be best understood by observing throws.