

SCHOOL GAMES FEDERATION OF INDIA

Rules & Regulation of Archery

Archery

Archery is the art of shooting arrows from a bow at a target. The closer the shot is to the target, the higher the score will be. The individual scores are added up, and the archer with the highest total wins the competition. Archery involves shooting at one target from various distances. Field archery involves moving around a course, shooting at different sized targets from unknown distances.

The bow used in field archery looks like a traditional bow. Bows are made of materials like carbon, fiber glass and have a sight and stabilizers. Stabilizers are attached to the bow to help keep it steady while shooting.

Arrows have a sharp metal tip at the front and a groove at the back that slots over the bow string. The targets or butts are made of straw ropes that are stitched together. Colored paper or canvas targets are pinned to the targets.

Rule of the Game

Any bow except a crossbow may be used for competition.

Arrows should have a distinctive crest in order to identify the archer.

After the signal to shoot, arrows should be knocked.

Arrows that fall from the bow and cannot be reached with the bow from the shooting line, are considered to shot.

Only six arrows may be shot at the designated target, if more than six are shot; only the six are counted, and arrow shot at any other target shall not be scored.

An archer should shoot from the longest distance first, the second longest distance next and so forth.

Scores are recorded from the highest score to the lowest score.

Distances shot are- Men: 90m (300 feet), 70 m (230 feet), 50m (165 feet), 30m (100 feet), Women: 70m, 60m, 50m, 30m.

The longest distance is shot first.

A single FITA (Federation International de Tiral Arc) round may be shot over one or two days.

Arrows should be retrieved only after the signal is given. The diameters of the standard faces are 122 cm and 80 cm.

The 122 cm face is composed of a circle in the center of 24.4cm diameter ringed by four concentric bands, the breadth of each measured radially being 12.2cm.

The 80cm face is composed of a circle in the center of 16cm diameter ringed by four concentric bands, the breadth of each measured radially, being 8cm.

The colors of both target faces are gold, red, and blue, black and white. The 122 cm face and 80cm face have each color zone divided into two zones of equal width by a line not exceeding 2mm in width. Such dividing lines shall be entirely within the higher scoring zone.

(1) Except between black/white and black/blue, dividing lines between colors may be used. Such dividing lines shall not exceed 2mm in width and shall be entirely within the higher scoring zone.

(2) The line marking the outermost edge of the white shall not exceed 2mm in width and shall be entirely within the scoring zone. The center of the gold is termed the 'pinhole' and shall be marked with a small cross (x) the lines of which shall not exceed 2mm in width.

Tolerances (plus/minus) on target faces are permitted as follows:

(1) 122cm-3mm on the diameter of each scoring zone.

(2) 80cm-2mm on the diameter of each scoring zone.

Equipment Details for the Archery Competition

1. ARCHERY GROUND / Venue Minimum 30/70 mts for the Indian round competition.
2. Indian Round equipment, Wooden Bow, Wooden Arrows, Archer's accessories, Target Buttress Target Stand, Target Face, Target Pins, Binocular, Tool Kit.
3. Ground marking material
4. Judging tools
5. Scoring sheets
6. Time control equipment
7. Flags

Composition of Teams

Each state will be allowed to enter a men's team and women's team. Men's and Women's team may have no more than a maximum of 4 players in a team.

Number of Shooting and Scoring

Each player is allowed three shooting arrows per round of count as scores. There will be three shooting rounds from different distances. 1st Round will be 50m, 2nd Round will be 30m. Scoring will be based on three arrows landed on the target; each circle on the target worth points with Bull's eye (Centre of target) is 10 points and outermost circle is 1 point.

Coaching

Coaches are not allowed on the field to coach their players once the shooting has begun; however, coaching may be allowed during the two minutes break between round(s).

Player Injury

Player who sustains an injury shall be entitled to a five minutes suspension of plays. A player may have only one suspension per injury. A player is not entitled to a suspension of play for symptoms pertaining to a loss of strength, breath or physical conditions.

Toilet Break

Toilet breaks are permitted only between rounds. Only one toilet break allowed per player during rounds.

Archery Ground Rules

The Archery Tournament is a newly introduced sport to be implemented in these inter-state games. Archery matches will begin at 9:00 am each day. The days of matches will be numbered and matches will be played continuously from match # 1 until the day's matches are finished. Since we have only one venue, all players must be at the venue site during matches and ready for a match when they are called to. Because we have only one venue, time will be a premium and therefore it is vitally important that all players be prepared to respond to a match when called upon. In case of rain during the course of tournament, the Tournament Director, in conjunction with Tournament Referee and the venue operation committee, will determine how matches are to be rescheduled.

General Rules and Regulations

The Archery Competitions shall be run in accordance with the rules and regulations set forth in this manual the International Archery Federation Rules of Archery and the International Archery Federation Code of Conduct.

Safety

Bow and arrow are considered dangerous weapons. No player is allowed to carry the bow and arrow outside the designated shooting zone. There is only one shooting target to aim for. Do not point your bow and arrow to any spectator, or on any object; other than the shooting target. Failure to comply with this safety rule will be subjected to disqualification of the match practice.

FITA RULES RANGE LAYOUT

The range must comply with the following provisions:

1. The range will be squared off and each distance accurately measured from a point vertically beneath the gold of each target face to the shooting line. The tolerance for field dimensions at 90/70/60 meters is + 30cm; at 50/40/30 meters+ 15cm.
2. A waiting line will be marked at least five meters behind the shooting line.
3. Each target butt will be set up between an angle of about 10 degrees and 15degrees from the vertical, but a line of target butts will be set up at the same angle.
4. The height of the centers of the gold in a line of target butts on the range should look straight at all times.
5. All athletes of a division or category will be accommodated on one range. The women's portion of the range will be separated from the men's by a clear lane at least five meters wide. For the Olympic Round there will be a central clear lane of approximately 10 meters.
6. Whenever possible provision will be made for sufficient target butts to have not more than three athletes per target. If the range does not permit this, four athletes will be the maximum number per target butt.
7. There will be a point marked on the shooting line directly opposite each target butt. There will also be a number corresponding to that target butt between 1 and 2 meters in front of the shooting line. If two or more athletes are shooting at the same target butt at the same time the shooting positions will be marked on the shooting line. A minimum space of 80cm per athlete will be guaranteed. Where athletes in wheelchair are competing, additional space will be necessary.
8. There will be lines extending at right angles from the shooting line to the target line. These will make lanes to contain one, two or three butts.

9. A 3- meter line will be marked in front of the shooting line.

Time Control Equipment

Acoustic and visual

The Director of shooting (see article 7.7.1 of FITA Rules) will control: the start and end of each time limit with a whistle or another audible indicator; and each time limit with digital clocks, lights, flags, plates and/or any other simple visual indicator in addition to the audible signal referred to above. Visual indicator in addition to the audible signal referred to above.1 In the event of a small discrepancy between the acoustic and the visual time control equipment, the acoustic time control equipment will take precedence.

1. The following equipment can be used: Lights

The colours of the lights will be red, yellow and green in that order with the red at the top. The lights must be synchronized and at no time will two different colours be on at the same time. In FITA Championships, the lights must be linked with the acoustic equipment so that the first sound of acoustic equipment is simultaneous with the light turning red and the digital clock reaching zero.

Digital Clocks

When timing is controlled by the use of digital clocks the figures on the clock will be minimum of 20cm in height and must be able to clearly read at a distance of 100m. The clock must function on a countdown principle. All other requirements, e.g. position, number, etc., will be the same as for lights.

If both systems are used they must be synchronized. If there is a discrepancy the digital clock takes precedence.

The visual signals are to be in place on both sides of the field and, if necessary, in the clear lane women's and men's target butts so that right and left handed athletes will be able to see them. They are to be placed in front of the shooting line on each side of the field and in the clear lane at any distance shorter than 30 meters, as long as they are visible to all athletes on the shooting line.

Match play Indicators:

When the time limit is controlled by electrical equipment, plates, flags or other manual indicators must be available in case the electrical equipment fails. Lights and/or digital clocks and emergency equipment are mandatory for FITA Championships. When the time limit is controlled manually by means of plates these plates are to be not less than 120cm by 80cm in size. They must be easy to turn quickly to show either side. One side of each plate will have 20-25cm wide stripes alternating in black and yellow. The stripes will be at an angle of about 45 degrees to the ground. The reverse side of each plate will be all yellow.

ORDER OF SHOOTING AND TIMING CONTROL

1. One, two, three or four athletes may shoot on the same target butt simultaneously.
2. If three athletes shoot one at a time on a target butt, the rotation will be ABC, CAB, BCA, ABC,
3. If your athletes shoot in pairs on a target butt, the rotation will be AB-CD, CD-AB, AB-CD, etc.
4. If there are four athletes shooting simultaneously, the position on the shooting line will be by mutual agreement. If there is no agreement the first athlete allocated to a target butt will shoot on the left, the second athlete will shoot in the middle and the third athlete on the right. With four athletes the positions will be assigned correspondingly.
5. When shooting on multiple set-ups each athlete will shoot his or her arrows at his or her own center. With three (3) athletes per target butt, the athlete positioned on the left will shoot at the

center and the athlete positioned on the right at the bottom right center. With four (4) athletes per target butt, athlete A will shoot at the top left center, B at the top right center, athlete C will shoot at the bottom left center and D at the bottom right center.

The order of shooting may be changed temporarily for the purpose of changing a string, making other essential adjustments to equipment or for minor medical treatment. If, however, such attention to equipment or medical matters should become essential while on the shooting line, the athlete may step back and at the same time call a Judge.

Shooting Time and Time Limits:

1. Thirty (30) seconds is the time allowed for an athlete to shoot one arrow (including tie-break) when shooting alternately in the Olympic Round matches;
2. Forty (40) seconds is the time allowed for an athlete to shoot one (1) arrow in order to break ties, or to shoot make -up arrows.
3. One (1) minute is allowed for a team Round for a team to shoot three (3) arrows, one per athlete, in the Olympic Team Round for the purpose of breaking ties.
4. Two (2) minutes is the time allowed for the purpose of breaking ties. Arrows for an Olympic Round team to shoot are six (6) arrows;
5. Four (4) minutes is the time allowed for an athlete to shoot an end of six arrows.
6. The time limit may be extended in exceptional circumstances.

Basic Archery Accessories

Arm Guards

Arm Guards are reinforced leather or plastic protective guards that are worn on the inside of the bow arm. They are worn to protect the arm from the bowstring as it moves forward after the release.

Finger Tabs

Finger tabs are used to protect the fingers as they release the bowstring and also provide a smooth surface for the bowstring to slide on.

Quivers

A 'Belt Quiver' and 'Holster Belt Quiver' hold the arrows and, if fitted with a pocket, can hold spare nocks, fletches, tube of glue, etc.

Chest Guard

A Chest Guard is used to prevent injury to the breast of women archers. The prolonged repetition of pressure from the bowstring can lead to the formation of a lump within the fatty tissue, which is clinically difficult to tell apart from cancer tissue without a biopsy. They are also used for the purpose of keeping loose clothing from interfering with the bowstring, especially if wearing clothing for cold or wet weather. The chest guard is made from a nylon or plastic open mesh material held around the chest with an elastic strap.

Bow Sling, Finger Sling and Wrist Strap

A 'Bow Sling' is an adjustable leather strap attached to the bow. The sling should fit loosely over the hand. The purpose of the bow sling is to allow the archer to relax the fingers of the bow hand and not have to hold the bow to stop it falling out of the hand on release. The 'Wrist Strap' does the same job, but is attached to the wrist and a loop is placed around the bow and clipped to the loop around the wrist. The 'Finger Sling' can be a strap of leather or a length of string with a loop

at each end. It is attached between the index finger and thumb with the bow loosely held in the hand.

The 10 steps of shooting

The 10 basic steps to shoot a bow are:

1. Stance
2. Nocking the Arrow
3. Drawing Hand and Bow Hand
4. Bow Arm and Pre Draw
5. Drawing the Bow
6. The Anchor
7. Holding and Aiming
8. The Release
9. Follow Through
10. Relaxing

1. Stance

The archer stands upright in a comfortable, relaxed position with one foot each side of the shooting line. The feet should be about shoulder width apart with an even amount of weight taken on each foot and an even amount of weight between the ball and heel of each foot. This will maintain balance and help keep the body steady. During the shooting sequence, the body position must remain as steady as possible with no shifting of weight or leaning of the body. If there is a problem with bowstring clearance to the arm, then an open stance may be required. Once the stance position has been established, then it must be consistent from shot to shot. Using foot markers can help maintain a consistent stance.

2. Nocking the Arrow

Nock the arrow by placing the nock of the arrow onto the bowstring under the nocking point locator. Make sure that the index fletch on the arrow is facing towards you and nock is pushed firmly onto the bowstring. The arrow shaft is placed onto the arrow rest.

3. Drawing Hand and Bow Hand

For Target Archery style the index, second and third fingers are used. The index finger is placed above the arrow nock and the second and third fingers are placed below the arrow nock. Curl the fingers around the bowstring so that the first joint of all three fingers are aligned on the bowstring. Keep a space clear between the index and aligned on the bowstring. Keep a space clear between the index and second fingers and the arrow nock, so the fingers do not touch the nock. (This will prevent 'pinching' of the arrow). Keep the back of the hand as flat as possible. (Relaxed). The thumb is tucked into the palm so it can be placed against the neck at full draw. Place a slight pull on the bowstring to set the fingers in position ready for the draw. During the draw and anchor maintain an even amount of pressure on all three fingers.

4. Bow Arm and Pre Draw

Push out with the bow arm to set the hand position into the bow grip, then raise the bow and drawing arm together. Keep the elbow of the drawing arm high, as this will help bring into action the back muscles needed to draw the bow to full draw.

5. Drawing the Bow

From the Pre- Draw position, use the back muscles to pull the elbow of the drawing arm backwards in one smooth motion until the drawing hand is placed against the jaw. The position of the head and body should not move. (Pull the bowstring to the face, not move the face to meet the bowstring.) An equal amount of push on the bow hand and pull on the drawing hand will keep the body balanced.

6. The Anchor

The Anchor is where the hand is positioned on the jaw and the bowstring touches the face. It is vitally important that the index finger is firmly placed against the jaw, the thumb is tucked into the palm of the hand so it can be placed firmly against the neck and the bowstring is firmly touching the chin (and nose, if possible.) The relationship between all these positions is important as it acts as the rear sight, so it is vital that it should be as consistent as possible.

7. Holding and Aiming

Holding is where the tension is maintained in the back muscles and then the bow arm is moved to align to the sight pin into the centre of the target. As the sight pin is moved into the centre of the target, the string alignment should be checked. String alignment, is the alignment with the sight pin. When the bow is held in the correct vertical position, then the bowstring and edge of the bow will be parallel. If it is not, then the bow is tilted away from vertical. Just before full concentration is made on aiming, all the previous steps should be checked to make sure that everything is in the correct position. If any part of body feels out of place, then it is best to stop.

When aiming into the centre of the target, it is natural for sight pin to move around, as the muscles try to hold it steady. With practice, aiming will become steadier. With practice, aiming will become steadier. Move the sight pin up if arrow lands high, move down if the arrow lands low, move left if the arrow lands left and move right if the arrow lands right.

8. The Release

The Release of the bowstring is the most critical step in the sequence. If it is not done correctly, then all the effort in the previous steps is cancelled out. To release the arrow correctly, the fingers holding the bowstring must allow the string to slip off the fingers. All three fingers must release at the same time. This will let the bowstring pull away from the fingers with the least amount of deflection. When the release is done correctly, the hand should move backwards, as the back muscles will pull the arm backwards and the fingers should come to rest beside the neck. If the finger muscles are flexed open to release the bowstring, the hand will usually come to rest about 5cm backward from anchor position. Flexing the finger muscles will deflect the bowstring sideways and the arrows will have a horizontal spread across the target.

9. Follow Through

The follow through is maintaining the position of the bow arm on release until the arrow hits the target. As the arrow slides along the arrow rest, any movement of the bow will move the arrow. The position of the head and body should remain steady, while the drawing hand moves backwards after the release. It is important to not let the bow arm fall after the release, as this can become a problem when the bow arm actually starts to fall on the release, making some arrows land low on the target. Also moving the head to see where the arrow went too soon after the release can make the bow move sideways.

10. Relaxing

The archer must relax after each shot to allow the muscles to recover from their effort. About 20 to 30 seconds should be enough time for the muscles to recharge, ready for the next shot. If not

enough time is allowed between shots, then the muscles will fire rapidly and may even become sore. Tired muscles will not be able to perform consistently. While the body is relaxing, it is also time for the mind to consider the previous shot and its result, and check where possible improvements can be made. The mind has control of all the muscles required to shoot the arrow correctly, so the '10 steps' act as a mental Check list to tick off for each step.

Archery Fitness

Archery fitness consists of three main factors;

Flexibility

Strength

Diet

The flexibility (movement) of joints in the body are controlled by several factors:- bone structure, muscle bulk, tendons and ligaments. All these control the range of movement the joints are capable of. To increase this range of movement, the following stretching exercises are recommended.

Stretching Exercises

The following exercises are for stretching and warming up the muscles before shooting and for stretching and cooling down the muscles after shooting. These exercises will help muscles, tendons and joints and also increase flexibility. When performing these exercises, do not hold your breath at any stage, as it may cause dizziness. As you do each exercise the muscles will require more oxygen, so your breathing and heart rate will increase.

To loosen upper arm and chest muscles. Interlock the fingers with palms out. Extend arms above head, keeping fingers locked. Stretch upwards and hold for 10 seconds.

To loosen back muscles. Cross arms in front of chest and place hands around shoulders. Slowly stretch hands towards middle of back as far as possible. Hold for 10 seconds.

To loosen chest, top of shoulder and lower arm muscles, bend one arm over head and down back; bend other arm around and up back. Grasp finger tips and hold for 10 seconds, then reverse arm positions and hold for 10 seconds. Keep backbone vertical during this exercise.

To loosen shoulders and back muscles, lock fingers together, extend arms and twist slowly as far as possible to the right and hold for 10 seconds. Then twist slowly to the left and hold for 10 seconds. Do not twist suddenly as it may damage backbone joints.

To loosen neck and upper shoulder muscles. From a normal standing position with arms at sides, rise up both shoulders towards neck as high as possible, then move shoulders forward, then move shoulders back. Use a length of spear gun rubber or rubber tubing, grasp each end, raise arms to shoulder height and extend arms, keeping elbows straight, outwards and backwards by squeezing shoulder blades together. Hold for 10 seconds and repeat about 6 times.

To loosen shoulder muscles use a length of spear gun rubber or rubber tubing, grasp each end, and raise one arm and hold for 10 seconds. Repeat about 6 times. Swap arm position and repeat exercise.

To loosen chest and shoulder muscles use a length of spear gun rubber or rubber tubing, grasp each end behind back, hold arms at shoulder level, then swing arms forwards to stretch rubber. Hold for 10 seconds. Repeat about 6 times.

To loosen shooting muscles, use a length of spear gun rubber or rubber tubing tied in a loop, imitate the shooting draw. Hold for 10 seconds. Repeat about 6 times. Repeat exercise with opposite hands to balance muscle.

Use a length of spear gun rubber or rubber tubing, grasp each end behind back, hold arms at shoulder level, then swing arms forwards to stretch rubber. Hold for 10 seconds. Repeat about 6 times.

To loosen shooting muscles, use a length of spear gun rubber or rubber tubing tied in a loop, imitate the shooting draw. Hold for 10 seconds. Repeat about 6 times. Repeat exercise with opposite hands to balance muscle development.

Strength

Strength in Archery is not only the muscle power required drawing a bow, but also to maintain balance and stay steady as you aim. How strong you currently are dictates what poundage of bow you can use. A bow that is too strong for you will only do possible damage to your muscles and joints. A light draw weight bow will generally be used for beginners to learn basic skills. As skills are developed, stronger draw weight bow may be used and so strengthening of muscles will be required. Some of the above stretching exercises can also be used to strengthen muscles.

Strengthening Exercises

The best results for strength training can be achieved by the following principles:-

- (i) Progressive Loading
- (ii) Specific Movement

Progressive Loading

The training weight for a person to start with is usually established by finding the maximum load that can be lifted 10 times in repetition. (Usually about 75% of maximum strength). With all exercises, it is best to start with only a few repetitions of each exercise for the first two weeks, then progressively increase the number of repetitions over a period of about 4 weeks, until 8 to 10 repetitions can be achieved. Allow a recovery period between each exercise to avoid fatigue. Most importantly, if a particular exercise is causing pain in the muscles or joints, then reduce the weight and/or the number of repetitions. "No Pain, No Gain" is wrong. When the body feels pain, it is a message to ease off and slow down before you do damage to muscle fibers and tendons.

Archery Techniques

Archery is a game of precision and skills. While talents can take you places, that alone can't make you an archery grand champion.

Stance

Your stance determines the strength, consistency, and the accuracy of your shot. There are different archery stances. It would be best that you learn all of them and use the one that best fits the occasion. The even stance is the stance following a natural position stance. It is also very easy to do. However, this stance is not advisable for shooters that have wide chests, as it lowers the area for clearance of the string. Other than the even stance, you can also do the open stance, close stance, and oblique stance.

Drawing and Aiming Techniques

To draw your weapon and aim at your target, it is important that your fingers are relaxed. This is the very basic drawing and aiming technique that you should master. To help you with it, use the necessary accessories. An arm guard is going to be essential. The way you draw and aim at your target depend upon your skills and physical abilities as an archer. However, you should also consider the type of bow that you are using.

Release and Follow-through Techniques

To properly release your arrow, you need to exude both relaxation and concentration. For a good follow-through, make sure that all your fingers resting on the bowstring are relaxed. Your eyes and

head should be turned toward the target at all times too, following the direction and the flight of the launched arrow. Your bow arm should be extended towards your target. And lastly, your hand should grip the bow. Use the sling to help you out in this step. These are the three basic archery techniques that you should master. With the right amount of practice, your game should get better slowly but surely. You will not be a great archer overnight, but with a great amount of dedication and patience, you'll get better with your game in no time.

SCORING

1. There will be scorers in sufficient numbers to ensure that each target butt has a scorer.
2. These scorers can be athletes when there is more than one athlete per target butt. One scorer will be appointed for each target butt.
3. At distances of 90, 70, 60 or 50 meters for cadet women scoring will take place after every second end of three arrows or each end of six arrows (at FITA Championships or Games Tournaments).
4. At distances of 50m, 40m for Cadet women and 30 meters, scoring will take place after every three arrows.
5. Scorers will enter on the scorecards the value of each arrow in descending order as called out by the athlete (or athlete's agent, article to whom the arrow belong. Other athletes on that target will call the assigned judge who makes the final decision).
6. In the Olympic elimination round, the value of the arrow will be called by the athlete. His/her opponent will check the value of each arrow and in case of disagreement call the assigned judge who makes the final call.
7. In the Olympic elimination round team event, scoring will be cumulative in descending order for the six (6) arrows of each team.