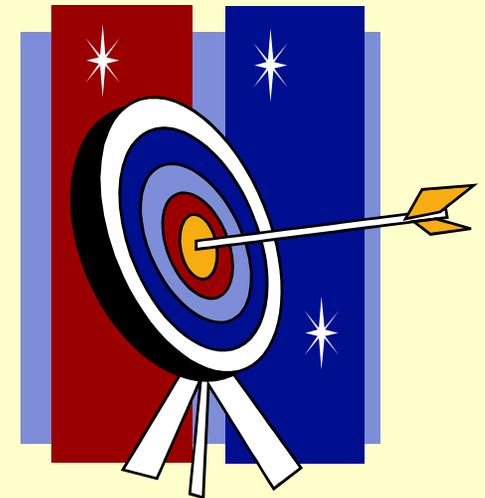


ARCHERY & SCOUTING

PRESENTATION POINTS:

- Equipment & Safety
- Personal Safety
- Facility Safety
- 10 steps to good shooting



Kathleen Millar, CAE, OCT

NCCP Level 4 Coach

EQUIPMENT SAFETY

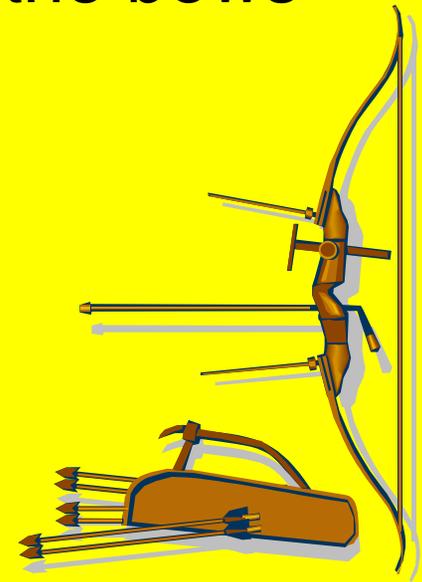
- Stringing & Unstringing a recurve bow

Use of a proper stringer at all times

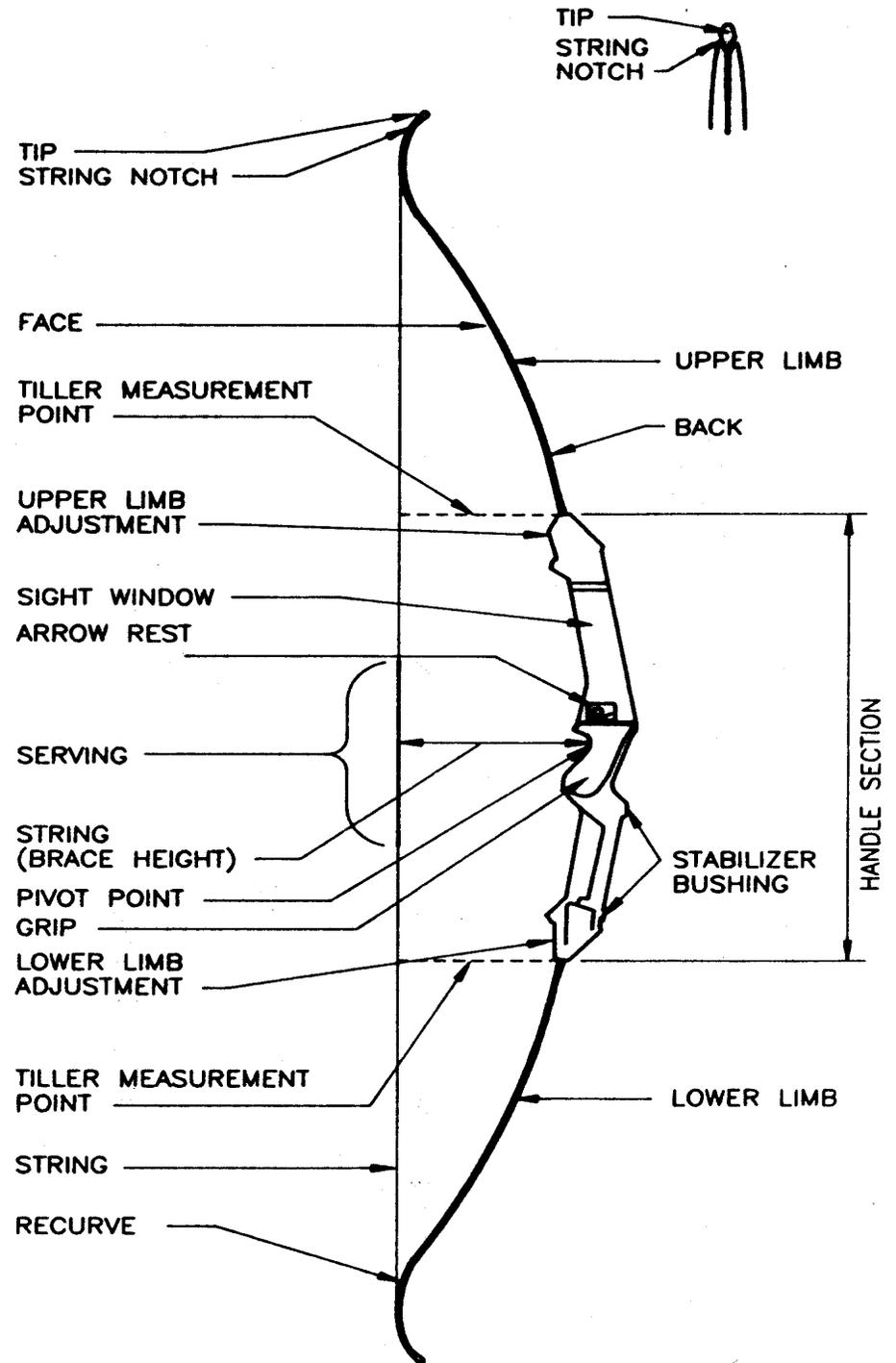
Things to look out for

Deciding who will string/unstring the bows

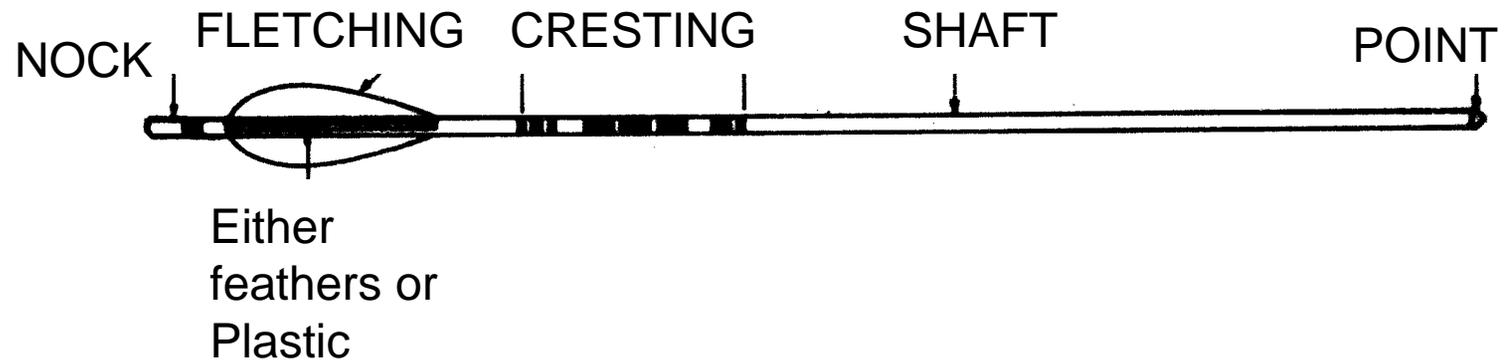
- Arrow rests
- Nocking Point
- String
- Arrows
- Accessories



Recurve Bow Nomenclature



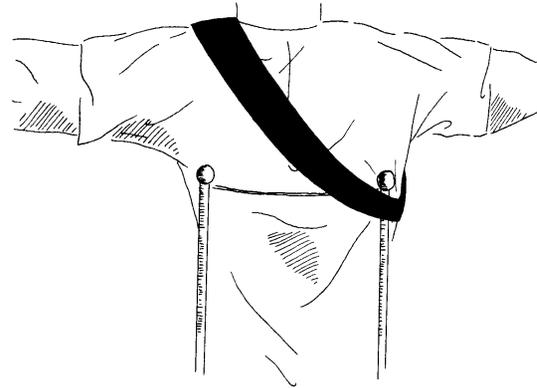
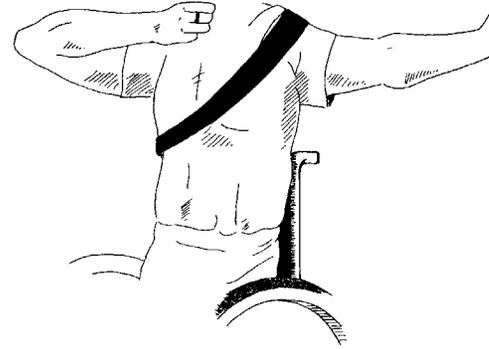
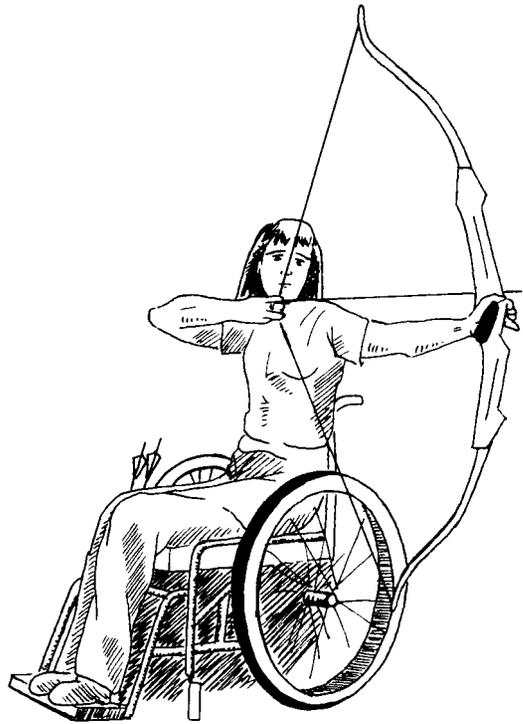
Arrow Nomenclature



PERSONAL SAFETY

- Clothing (snug-fit tops, no buttons on breast pockets, appropriate footwear)
- Glasses & anchor point
- Determining eye dominance
- Sizing arrow length
- Assessing physical strength
- Emergency Action Plan
- Make classes interesting & discipline will not be an issue

ADAPTED ARCHERY



FACILITY SAFETY

- INDOOR RANGE

Target or 3D

Netting, floor protection, fire exits, shooting line, shooting control

- OUTDOOR RANGE

Target, field or 3D

Netting, shooting line, shooting control



INDOOR TARGET

Floor Shooting area must be smooth and free of unnecessary objects.

Range Layout A backstop net should be hung behind the targets.

Safety Zones

- There must be at least 1m between the net and the wall.
- There must be at least 3m behind the shooting line. During a competition, this safety zone must be at least 5m.
- The height of the shooting area must be at least:
 - 3m when shooting up to 35m
 - 4m when shooting between 40 and 45m
 - 5m when shooting between 50 and 55m
 - 6m when shooting 60m and more

Ventilation Practice should take place in a well ventilated area.

Access

- Doors or windows situated in front of or beside the shooting line must be bolted shut.
- Entrances situated in front or beside the shooting line must be controlled during shooting. Also, a screen should be installed to protect anyone entering the range.

LAYOUT FOR INDOOR FACILITY

Wall

1-2 m

Netting or Backstop

2 m

Targets

18 m

Shooting Line

XX XX - Group left-handed shooters

3-5 m

Free space / waiting area

OUTDOOR TARGET

Terrain

- The shooting area must be smooth/flat and free of unnecessary objects.

Range Layout

- Minimum space of 80 cm per athlete on the shooting line
- Wheelchair athletes need additional space
- When the public has the right of access or in a residential area, suitable barriers must be erected around the range to keep spectators back, at least 20 meters away from the ends of the target line
- Maintain a margin of approximately 13 meters from the target line when the targets are moved forward to 30 meters. The barriers will be at least at 50 meters beyond the 90 meters target line. The safety distance of 50 meters may be reduced if an adequate backstop e.g. efficient netting, a bank or similar device is erected (not a Hedge or penetrable fence). The backstop must be high enough to stop arrows which have just missed the top of the butts at 90 meters. Considerations should also be given to any distractions caused to the athletes by movement of people, etc behind the butts.

OUTDOOR TARGET

- A target range situated near a residential zone must be marked off by a warning tape 1m from the ground. The tape must be placed at least 10m behind the furthest target, and on each side of the shooting area where it is adjacent to a thoroughfare.
- A clearly labelled sign, indicating «Danger, archery zone, No traffic allowed» must be placed at all access paths and behind the targets.
- Should a shooting lane run parallel to a thoroughfare, there must be an empty space/safety zone between the shooting lane and the thoroughfare. The empty shooting lane must be at least 20m for every 10m of distance difference between the shooting line and the line of targets.
- There must be a safety zone of at least 3 m behind the shooting line.
- The shooting line must be marked clearly.
- The demarcation lines must be visible. They must cross the shooting area's length and width, and outline the shooting lanes.

Recommendations:

Layout /Design

1. When setting up an outdoor shooting range, it is suggested that targets be placed north-north-west of the shooting line and the shooting line should be situated south-south east.
2. For long-distance shooting or clout, use a large, vacant and isolated area.
3. A warm-up or practice area should be provided for outdoor tournaments whenever possible.

10 STEPS TO GOOD SHOOTING

Stance:

Take a position on the shooting line with the left side facing the target.

Left-handed people substitute right for left.

The feet are spread comfortably apart, and the body weight distributed evenly on both feet.

The shoulders line up with an imaginary line drawn from the centre of the target to the archer.



Hold the bow in the vertical position, with the string against the inside of the arm.

Pull an arrow from the quiver, and lay the arrow across the bow on the arrow rest and rotate the shaft until the index feather is perpendicular to the bow.

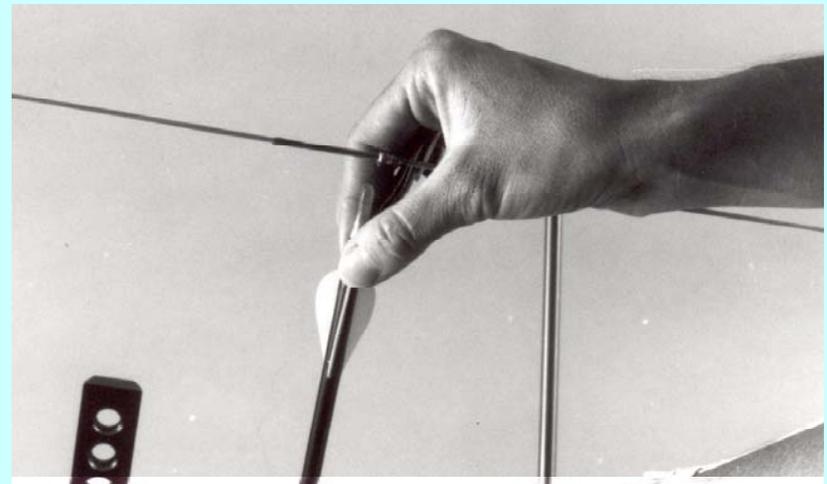
Then draw the arrow toward the string so the bowstring enters the arrow nock at the nocking point on the string.

Continue to exert a slight pressure until the string is placed under tension by the thrust of the arrow.

YOU SHOULD HEAR A “CLICK”.

The arrow is **not** held or drawn back by the fingers. The point on the string where the arrow is nocked is built up to fit into the nock of the arrow snugly so when the string is drawn back the arrow comes with it.

Nocking the Arrow



The hand that holds the bow is called the bow hand.

The "V" formed by the thumb and the fore-finger is directly behind the bow so when the bow is pulled, pressure will be felt on the thick, fleshy base of the thumb.

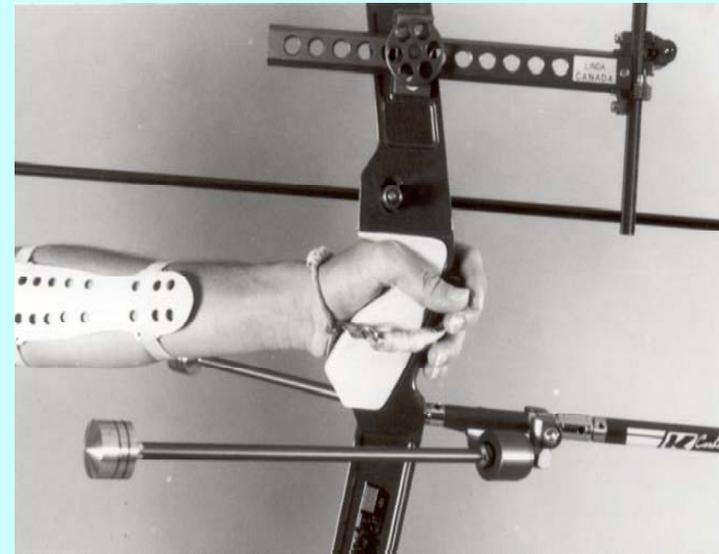
The bow is held with a loose relaxed grip. The archer may use a finger sling as a method of controlling the bow when using a relaxed grip.

It is important that the bow is placed in exactly the same position in bow hand for each shot.

If the bow sling is too tight, it will restrict the bow's movement.

The elbow of the bow arm is straight but not locked. To get the maximum clearance the elbow is rotated so the point of the elbow faces away from the string.

Bow hand and arm



The string is drawn with the first three fingers of the right hand (for a right-handed shooter).

The thumb and smallest finger are not used and are relaxed in the palm of the hand. Hook the fingers around the string.

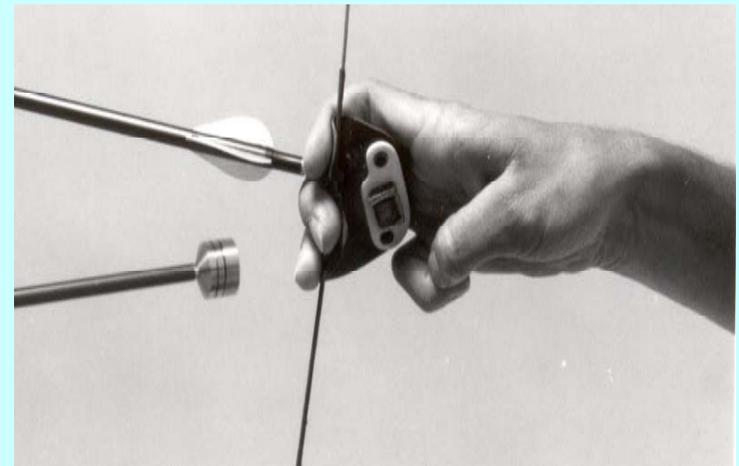
The index finger is placed above the arrow and the other two below. The string cuts across the second and third fingers of the drawing hand in line with the joint nearest the fingertips. No attempt is made to turn the hand on an angle to try to place the string in the crease of all three fingers.

Set the hook of the fingers at more than right angles to the hand/wrist line.

This will then allow for the natural flexing of the fingers as the weight is applied to them during the draw. The slight straightening or flexing which occurs assists in keeping the arrow against the arrow rest during the draw, anchor and hold stages of the shooting sequence.

The back of the hand and the wrist are in a straight line to the elbow joint. Do not cup the hand. Do not allow the string hand to rotate during the draw. Keep it in the same position throughout the draw.

The drawing hand



A sighting aid is used on the bow to assist the archer to aim.

There are differences between the two methods of anchoring.

The index finger of the drawing hand comes back along the jawbone until the string touches the centre of the chin and nose. The string bisects the centre of the nose and chin and the string hand is in firm contact with the jawbone. The mouth should remain closed when the string is drawn.

Drawing the arrow (with a sighting aid)



Drawing the arrow (without a sighting aid): Efficiency in this method of shooting demands a great deal of practice. Judgement of elevation is required to hit a target. The archer "high anchor" positions the sighting eye directly over the arrow so the line of sight and the line of flight are similar by:

- extend the bow hand toward the target
- pulling back steadily with the drawing hand, keep the elbow of the drawing hand high and parallel with the arrow, until the forefinger of the drawing hand touches the corner of the mouth.

With both styles of anchor be sure the fingers of the string hand touch the side of the face or under the jawbone firmly.

The position must be replicated exactly with each shot to ensure consistent arrow elevation. This keeps the nock end of the arrow in the same place every time an arrow is shot.

Do not allow the string hand to "creep" forward from this position.

The anchor (facial reference)



Holding and aiming (with a sighting aid)

After the archer is at full draw, the string, sight and target are lined up. The sight pin must be positioned on the centre of the target.

“Back tension” is needed to maintain this position while aiming is completed.

For sight correction, the archer moves the sight pin in the direction the arrow went (e.g., if the arrow impacts higher than the centre, move up the sight pin).



Holding and aiming (without a sighting aid): It is a matter of lining up the arrow with a point on the target. Depending upon the distance shot, there may be a gap above or below the middle of the target where the point must be lined up to hit the middle of the target. Repeat that "picture" of the bow and target consistently.

Releasing

A dynamic release is the normal reaction of the drawing hand moving back as the string rolls off the fingers.

This short backward movement of the hand is caused by the continued tension of the back muscles.

The release is achieved by relaxing the fingers that hold the string.

In this method, the fingers are not pulled away from the string, only allowed to relax as the torso muscles pull the string securely against the chin.

(along the side of the cheek for a “high anchor”)



Follow through & Relaxation

The follow through is as important in archery as it is in any other sport.

Considerable effort is necessary to hold the full draw position. It is natural to relax after the release action takes place. Many archers relax before the arrow leaves the bow, with the result that the bow hand drops at the moment of release.

Ensure the bow hand, and the string hand, remains at the same elevation after release until the arrow hits the target.

Then check the position of both hands to be sure the correct follow through has been achieved.



REFERENCE MATERIALS

- Federation of Canadian Archers, Inc
 - Range Safety Officer guide & test
 - CanBow programme, kits, DVD
 - FCA rulebook
 - FCA website: www.fca.ca
- Ontario Association of Archers, Inc
 - OAA website:
<https://www.oaa-archery.on.ca/index.php>