



First shots on the range, Camp Barnard March Break Day Camp 19 March 2008.

The archery range at Camp Barnard opened in March 2008. Camp Barnard's Archery Range was made possible through the generous donations of the Fraser Family in memory of their son John Fraser. John was a Scout Leader and Service Team member in the Greater Victoria Area; he loved Camp Barnard. The leadership and funding support of the Camp Committee also made it possible for the range to be operational within a fairly short timeline of less than six months.

George Trattner of the Victoria Bowmen's Association provided guidance regarding equipment and set-up. George also generously donated his time to teach the first course for ten youth (ages 9 – 14 years old) enrolled in the March Break Day Camps. Camp Barnard staff, Willy Burrows, enlisted the help of various volunteers to build the permanent butts, to install the poles and footings, and to put together various accessories such as the quiver stands and the bow stand. First Leader courses were held in April 2008.

## **About This Course**

The Camp Barnard Archery Range Safety Course was developed specifically for the Camp Barnard Archery Range to teach individuals how to shoot and instruct groups in the safest manner while maintaining a consistent standard. This course is only intended to be used at Camp Barnard, and any Leader instructing archery at Camp Barnard takes full responsibility. Camp Barnard **requires** any group using the range to have a Leader or Adult (in addition to the Rule of Two and Youth-Leader Ratio) who has taken the course present at all times, who is in charge of the range, equipment and use.

This course was updated on behalf of Camp Barnard by Rowan Kew.

#### **Contact List:**

Camp Committee: registrar@campbarnard.ca

Booking: campbarnard.ca/booking

Camp Staff: Willy Burrows 250-415-1619

#### **Key Terms:**

RSO: Range Safety Officer

Range Safety Course: Camp Barnard Archery Range Safety Course.

Range Director: Adult or Leader in charge with certification from Camp Barnard that an

individual has taken and completed the safety course.

# **Table of Contents**

About This Course	2
Table of Contents	3
Scouts Canada Policy	4
Accessing the Range	4
Equipment Set-Up and Take Down	4
Equipment Checklist	4
Assigning Equipment	5
Use of Personal Equipment	6
Range Safety Rules & Guidelines	6
Teaching & Progressing Through the Learning Stages	9
Spectators	9
Types of Equipment	9
Setting up the Range	10
Equipment Maintenance	10
Teaching Archery to Youth at Camp Barnard	10
Supervision	11
Behaviour Management on the Range	11
Determine eye dominance	11
Assign Equipment	12
Control on the Range	12
General Guidelines	12
Rule Review	13
Shooting Basics	13
Getting up to the line	13
On the Line	14
Common problems	15
Retrieving Arrows	16
Scoring	16
Sight Adjustment	16
Length of Archery Sessions	17

## **Scouts Canada Policy**

Scouts Canada's Shooting Sports Standards

## **Accessing the Range**

- The organizer for your group's range booking MUST have completed the Archery Range Course before in order to access the Archery Range.
- The Range is not for personal use. Only registered Scouters / Scout or Guide Groups and authorized renters in accordance with Camp Policies may utilize the Range provided they have a member present who has completed the Camp Barnard Range Safety Course.
- Access to the bows and arrows is through Camp Staff.
- All gear must be returned to the secured storage area after the booked time slot is over.
- Any damaged equipment must be reported

## **Equipment Set-Up and Take Down**

- Equipment is stored in secured area. A vehicle is required to transport the equipment down to the range. Set up is intensive, plan for an extra 20 to 30 minutes to set up prior to shooting. Again, a person who has completed this course must be present for set up.
- If the equipment is not in use for more than one week, the bows may be unstrung. Ensure there is extra time to restring the bows (about 10-15 more minutes).

## **Equipment Checklist**

- Located at Main Camp:
  - o Bows
  - Arrows
  - o Finger tabs/ Arm guards
  - Bow stringer
  - Pins for target faces
- Located at Archery Range in shed:
  - Quiver stands
  - o Bow stand
  - Target stands
  - Rope for lines
  - o Targets (Bales)
- Group Gear Needed:
  - o Whistle
  - First Aid Kit
  - Target Faces

## **Assigning Equipment**

Archery is based on eye dominance. To determine whether an individual is right or left-eyed dominant, have them:

- stand about ~2 metres away from you
- ask them to make a small triangle between their hands and to look at you through the triangle
- whichever eye they use to look through the triangle is their dominant eye.

If an individual has shot a different hand previously, it should be encouraged to try their dominate side. However, weigh pros and cons if that is something you wish to present to the individual. There will be difficulty in the transition which can affect motivation.

#### Left and Right-Handed Bows

Note: There is a limited number of left-handed bows.

If you are LEFT eye dominant, then you shoot with a LEFT-handed bow. This means that you hold the bow in your right hand and draw back the string with your left hand.

If you are RIGHT eye dominant, then you shoot with a RIGHT-handed bow. This means that you hold the bow in your left hand and draw back the string with your right hand.

If there are more participants than bows, have participants form groups of 2 with a partner of roughly equal height.

This can be very confusing for people at first, especially if they have an eye dominance which is opposite to their hand dominance. It is awkward at first when you start out shooting with your opposite hand. However, youth will experience greater success if they shoot according to eye dominance.

#### **Arm Guards and Finger Tabs**

Everyone should be given arm guards; finger tabs are optional. In the beginning finger tabs are not recommended. However, for those using 22lb draw or greater, and as the distance and frequency of shooting increases, finger tabs are beneficial. Again, this is an item that takes time to get used to. If youth are reporting pain or discomfort, take time to figure out why. Is it string slap, draw weight, or intensity/shooting duration?

#### Arrows

To assign arrows, they must be properly fitted:

- have the youth hold the arrow between the length of both arms with the nock at and perpendicular to their sternum.
- the arrows must extend about 7.5cm (3 inches) beyond their fingertips.
- if sharing targets, make sure that each person is using a different set of arrows.

Most arrows will be long for participants, this is okay. Too short arrows can result in injury. A majority of the camp arrows will be too long for the participants, be cautious if a participant is tall.

## **Use of Personal Equipment**

People may use their own personal equipment as long as they apply to the Camp Barnard Range Rules (below), Scouts Canada rules, and local bylaws. As the RSO you are responsible for the safe use of all equipment. If someone has their own equipment but appears to be over bowed (struggling to pull back or shooting quickly) you are responsible to ask them to stop shooting with their personal equipment. This is a safety risk.

## Range Safety Rules & Guidelines

#### **Camp Barnard Range Rules**

- Bows must not exceed 30 lb. draw weight.
- No compound bows allowed.
  - Compound bow description by Britannica "[a bow] which uses a system of cables and pulleys to make the bow easier to draw"
- All arrow points must be target (field) points. Absolutely no bladed or hunting points.

#### **Supervision**

A minimum of two adults are required to supervise the range included in the Scouts Canada requirements for adult to youth ratios. At least one adult MUST have taken the Range Safety Course, and must be present at all times. Only adults who have taken this course may instruct participants. Parents and other attendees will try to work with participants, especially if one is their child. They are not allowed to do so unless you know they have taken the Range Safety Course and have given them permission.

#### **Signals**

2 Short Whistles approach the line

1 Short Whistle commence shooting

3 Short Whistles retrieve arrows

1 LONG whistle Emergency, stop immediately and let down

Letting down is defined as closing or bringing the string back to the standard resting place.

Before commencing, ensure everyone is behind the Shooting Line. Spectators must be behind the Safety Line.

Nobody is allowed on the sidelines or behind the net.

#### *TWO* (2) *Short Whistles:*

- Once the signal is given, archers may approach the Shooting Line.
- Archers must straddle the line (one foot on either side). This allows the Range Director and assistants to ensure that everyone is facing the right direction.
- Bows should be held perpendicular to the ground.
- Once everyone is set, then proceed to the next step.

#### ONE (1) Short Whistle:

- An arrow can be taken from the arrow tube and "nocked" onto the string. When ready, the archers can commence shooting.
- The Range Director and Assistants should be able to view the whole line between them and should be constantly on the move to best supervise all youth on the line.
- Both the Range Director and Assistants should carry whistles and either may blow 1 long whistle if they deem the situation to be unsafe for any reason. This may be how someone is handling equipment, if an animal or person comes near or within the boundaries of the range, etc. Only the range director can blow the starting whistles.
- Once a participant has completed their end, they need to step back from the line, place their bow on the bow stand, and stand quietly behind the safety line until everyone is finished.
- When the line is clear and all bows are on the bow stand, proceed to the next step.

#### THREE (3) Short Whistles:

- The participants can cross the shooting line and retrieve their arrows. When pulling arrows, have each individual check behind them before pulling their arrows to avoid arrows jabbing those standing behind.
- Once retrieved, arrows are to be placed tip down back in the tubes.

### **Lost/Damaged Equipment**

If an arrow cannot be found initially, then all should help in searching for it. Youth should be advised to step carefully, as arrows sometimes are quite hidden in the grass. If the arrow is "lost", then a new set of arrows should be assigned, and the lost equipment reported to Camp Staff at the end of your session. Walk and sweep the area after everything is packed up as a final check.

### Any damaged equipment must be reported to Camp Staff.

#### **Arrow Removal**

Basic removal of an arrow: arrows should be removed from the outer areas first, then move toward the centre. Arrows should be grasped as close to the target bale as possible, and pulled straight back to avoid bending the shaft.

CHECK BEHIND. No one should be in the area immediately behind someone who is removing an arrow. If an arrow is "stuck", it is sometimes made easier if you turn your back to the butt and brace against it. Again, pull straight back. If arrows are stuck in wood, grab by the base and move the arrow in gentle circles. Store arrows which are already removed from the target by placing them away from the target before attempting to remove others.

Commencement of a new round should not happen until all visible arrows are retrieved.

#### Arrows Stuck in the Net

If an arrow is stuck in the net, care of fletches should be taken as this is the most common way of arrows being damaged. If the arrow is out of reach, lower the net before attempting removal. Raise the net following arrow removal, ensuring that the rope is properly tied and off of the ground. If the fletches are damaged, assign a new set of arrows and hand in and report the damaged equipment to Camp Staff at the end of your session.

At this point, provide any instructions or corrections that are required and repeat the process.

#### **Part II: Instruction**

## **Teaching & Progressing Through the Learning Stages**

Your personal experience during the course and with your own practice will be your best resources to teach archery. If you wish to be a strong teacher in archery, it is recommended that you look to advance your own skill. For more details on instruction, see Victoria Bowmen's resource page. Keep an eye out on BC Archery's Coaching Page to see when courses may be offered in the area.

Emphasis on SAFETY is essential. Be strict. If you must speak to a youth, then they are to be removed from the range area for the remainder of your session. Archery is a dangerous shooting sport, use your discretion. The participant may be at the Range again in the future, but the expectations should be reviewed beforehand.

The second emphasis is fun. Remind archers that fun can only happen if rules are followed.

## **Spectators**

Parents love to help out which should be encouraged. Often, they will try to help out their child or others around. Remember that most people have not taken a safety course in archery and you are the individual in charge of the range and the safety of the participants. If a spectator is trying to coach or instruct, as them not to. If you need to ask multiple times, ask them to leave.

## **Types of Equipment**

It is important to teach participants the proper terminology and to explain terminology from the beginning.

If bows and arrows are mentioned as weapons, reiterate that we are using archery equipment not weapons. We are using recurve bows, more specifically, bare bows. Some people have experience in archery for Hunting however technique is different. We are only teaching Target Archery. There are three parts to a bow: the riser, limbs and string. On the string, the brass bead is called the nock. Reminder, compound bows are not allowed at Camp Barnard

The most common type of arrows will be carbon fiber. These arrows are designed to be able to take a beating while still staying strong. That being said, damage to the arrows can occur. Carbon fiber will not break in a sharp manor, although they will fragment and splinter. Be very cautious around carbon fiber splinters as they can be very dangerous. Instruct any damaged equipment to be returned to you for safe disposal away from participants or others that can grab them. Report

any damaged equipment to Camp Staff. Any other arrows in the bin like wood should not be used.

## **Setting up the Range**

String up net along the cables, allow the net to hang loose along the ground and leave with ripples. Caution: these nets are heavy, as they are made of Kevlar. This does not make the net strong so it can be pierced, it's the dispersion of force along the net that stops the arrow.

Set the targets up close to the net and close enough together that arrows will not miss left or right of the safety net.

Place the shooting line back from the targets. **Know your participants**. The distance that you set the line back for a cub group would be different from scouts or older. Often kids will ask to shoot from further back. This can be a safety concern, and at greater distances the amount youth hit will decrease which can lead to discouragement. Good distances to start would be 6-8 metres. Arrow tubes can be placed along the shooting line; at most two tubes per target.

Set up the bows into left and right groups on the stand up. Keep arrows in the container until the group is ready to shoot. This is to prevent youth from running up to play with the equipment.

Set up a three metre waiting line behind the shooting line. This is where those not shooting need to wait. If there are spectators, they should not pass that line without your given permission.

## **Equipment Maintenance**

If the range is to be used on consecutive days in the summer, the net can be left up. If the net is wet, it should not be put away. There is room in the shed on the range where the net can be draped across the bow stands to dry.

Check all equipment for damage and alert Camp Staff of any damaged equipment. If you are unsure if a piece of equipment is damaged, alert Camp Staff.

All equipment taken from the secured storage MUST be returned to the secured storage at the end of the session.

## **Teaching Archery to Youth at Camp Barnard**

SAFETY first!

You are responsible for bringing your own whistle and first aid kit to the archery range. If you would like targets (faces), print out your own or check local shops.

**Supervision** 

A minimum of two adults are required to supervise the range included in the Scouts Canada requirements for adult to youth ratios. At least one adult MUST have taken the Range Course (to

use the whistle commands) and must be present to provide on-site instruction.

**Behaviour Management on the Range** 

All Leaders need to be consistent and firm with the rule that on the range, there are no second

chances. Therefore,

Youth should be set up for SUCCESS. If you know a youth usually has behavioural challenges,

put steps in place to support that youth ahead of time.

For example: Review expectations, plan on non-verbal cues that you can use to help remind them, plan on an extra adult who is there to support that specific youth, position yourself close to

that youth during your time on the range, provide words of encouragement for the small steps

that they are doing correctly on the range.

If a youth needs to be spoken to about unacceptable behaviour on the range, then they should be

required to sit out for the rest of the session, regardless of how far into the session you may or

may not be.

Remember about spectators, they can help but try not to allow them to coach directly unless

specified and cleared by you. Again, only if they have taken the Range Safety Course.

**Part III: Shooting** 

Archery Canada: Basic Coaching - Archery Skills

**Determine eye dominance** 

Eye and hand dominance are two different things. This is where some people get confused, and

some people will be resistant to using the opposite hand. It is initially very awkward. With

practice, it does become more natural.

If you are LEFT eye dominant, then you need a LEFT hand bow. This means that you hold the

bow in your right hand and draw with your left hand. It is called a left-handed bow because you

draw with your left hand.

Test for dominance:

11

Get everyone to line up and make a triangle with their hands with a small opening. With straight arms, lift up and look through towards you. Whichever eye they are looking at you through is their dominate eye.

## **Assign Equipment**

It is good to teach youth about equipment:

Bow – Riser, Limbs, Grip, String, Nocking point, Arrow rest

Arrow - Nock, Fletches, Shafts, Points

There is both small and large bows available with low poundage draw weights. All bows have the same draw weight. All the bows will be around the same weight which will increase with draw length.

**Bows:** There are two sizes of bows, short and long. There are less left hand bows than right hand bows. Bows should always stay off the ground! When they arrive at the range, have them place their bows on the bow stand.

**Arrows:** Consider both ends of the arrow sharp. Both the points and nocks are sharp. To measure an arrow, have a person hold their hands together and straight out. Place nock side of the arrow into their chest, and points forward. The arrow should extend roughly 3 inches out from the finger tips. There are different vane (fletching) colours, so if targets are shared assign different vane colours.

**Arm Guards and Finger Tabs:** It is recommended that all youth utilize arm guards unless they have a heavier shirt or thin jacket on. If you are shooting for long periods of time, finger tabs are recommended. They can be tricky to use, but are necessary for longer shooting periods. Any larger puffy or baggy over ware should be taken off.

## **Control on the Range**

If both Leaders have the Range Training, decide ahead of time which person will be in charge. Only that person should be giving the signals of 2-1 and 3 short whistles. Only in an Emergency situation should the second Leader be blowing the one long whistle to stop everything.

#### **General Guidelines**

Most of youth will remain at the 10-metre distance for a while. If your group has extensive opportunities to use the range, you may consider moving the shooting line back in 5-metre increments (to a maximum of 20 metres) only if your youth are able to shoot consistent

groupings. You should be shooting from the distance manageable for the least capable archer. Your shooting line will be indicated by the location of the quiver stands and the rope along the ground. Your whole group needs to be using the same shooting line at the same time.

An hour-long session is usually sufficient for a first time out. Any longer than an hour should include a break. If you take a break, someone must (with the RSO certification) be responsible for supervising the equipment. Watch for youth who are tiring (declining accuracy, inability to draw the string back to the proper position). Any of these conditions will increase the risk of an accident.

#### **Rule Review**

**Before handing out equipment:** Review the expectations of adherence to the rules and safety. This ensures youth are not distracted. The basic rules of Scouting apply to this activity – Respect of Self, Others, and the Environment (which in this case includes equipment).

#### At the range:

- Where the shooting line and safety lines are located.
- The appropriate use of and behaviour at each line.
- The whistle and verbal signals.
- Arrows always in the tubes, points down.
- No arrows should be withdrawn from the tubes until 1 whistle has been blown.
- When carrying arrows, points are always down. Absolutely no running.
- No cross shooting, only shooting at the target you are in front of.

### **Shooting Basics**

Assign shooting positions along the line and individually confirm which butt they are using as their target. Have no more than 2 people per target. Anyone not shooting (except recognized safety leaders) needs to be behind the safety line. Remember they are only to shoot at the target in front of them.

Assign arrows and have youth place arrows (tips down) into their quiver stands.

## Getting up to the line

When you blow the first signal of two short whistles, youth should pick up their bows, approach the line, and straddle the line.

**Foot placement:** Feet should be approximately shoulder width apart straddling the line. One foot needs to remain behind the line. Once feet are placed, they should NOT move until the end (three arrows) is completed. This helps with consistency of form. An "end" is the number of arrows which you are shooting consecutively. For our range, we are doing 3 arrows per end. For competition, they usually do 10 ends (sets of 3 = 30 arrows).

Bows should be held in a vertical position. Some people like to try to turn the bow sideways as they see in movies. This is a safety hazard due to the proximity of others and can lead to accident as the trajectory of the arrow is higher.

#### On the Line

When you see that all youth are properly positioned, blow the second signal of one short whistle. All adults should be behind the line and actively supervising the youth.

Encourage respect of each other at the line by asking youth to be quiet at the line so others can concentrate. Remind participants to watch where their arrows go.

If someone drops an arrow, and they cannot reach it without moving their feet, they should leave it until the whistle is blown to retrieve arrows. It is simply a lost shot. If the arrow is dislodged from the arrow rest, it is most likely because their fingers are too close (pinching) the nock.

**Arrow Placement:** You will notice that there are two different colours of fletching on the arrow. The single coloured fletch should be placed AWAY from the bow. This is to provide clearance from the string.

The nock is placed BELOW the nocking point on the string.

**Hand Placement:** The hand holding the riser should balance the riser, not grip it. Gripping can twist the direction of the bow.

The hand drawing the string, use 3 fingers only:

Common practice: Pointer finger above the nock and middle & ring finger below the nock.

Best practice: 3 fingers under the arrow. All fingers release as one object opposed to broken up pressure on top and bottom of the arrow. This is typical for modern barebow archery.

**Draw:** The bow string should be drawn back to the face at an anchor point; some place on the face that can be replicated each shot. **Be careful of sky drawing** which is drawing with the arrow pointed over the targets or safety net.

**Releasing the string:** the hand should relax, letting the string slide from your fingertips. The hand should remain at your cheek in a relaxed position.

**Body Position:** Check positioning of youth. Incorrect positioning will result in inaccurate shooting, and may result in injury. See the <u>basic coaching guide</u> for correct positioning. Basically, what you are looking for are "straight lines". A straight back, a straight line from the forward hand to the elbow at the back. The strength comes from your back when shooting.

It is recommended that you shoot with both eyes open.

## **Common problems**

Does not draw back far enough

• Arrows will fall short

Tries to draw too far back

• Risk of injury

Lifts and/or thrusts head forward to the string rather than drawing the string back to their chin

Arrows will fall short

Elbow too high or too low – not level from forward hand, across shoulders, to the rear arm.

• Excess strain on body, risk of injury

Lean back or forward when shooting

• Moving self in front or behind shooting line

Lunges when releasing the string

• Arrows will fall short

Goes too fast and does not check position, or takes too long in drawn position

• Injury, arrows may not go where intended.

Hyper Extension in elbow

• Leads to string slap. Keep inner arm rotated inwards, not up

Forearm scrapes from the bowstring are common. Arm guards are strongly recommended.

Once a person is finished with their arrows, they need to move quietly from the line, place their bow down, and remain behind the safety line.

### **Retrieving Arrows**

Only once all youth have placed their bows down and are behind the safety line should the 3rd signal occur – three short whistles

To retrieve an arrow, place one hand on the target at the base of the shaft, with the other grab firmly at the base of the arrow and pull straight back. Remember to check behind when pulling out an arrow.

Have each person check fletches when they retrieve their arrows. Replace the entire set and hand in for repair at the end of the session.

If you need to retrieve an arrow from the net, lower the net using the pulley mechanism rather than jumping or pulling at the net.

## **Scoring**

If you are scoring, you will need a pen and scoring card each time you approach to retrieve your arrows. Starting with the arrow furthest from the centre, make a mark (usually ">") to indicate which arrow you are scoring. If the arrow is clearly in the ring, then it counts for the point value of that ring. If the arrow is touching the outer rim of the black line, then it counts as the higher point value ring. If an arrow misses the target altogether, it is scored as a zero "0".

## **Sight Adjustment**

It is important to emphasize that in the beginning the goal is to develop consistent form so that you have close grouping of your arrows. It doesn't matter where it is on the target or butt, as long as it is closely grouped.

Once you are able to get consistently close grouping, then you can adjust the sight pin to move the centre of that grouping to the centre of the target.

#### Moving the sight pin:

You will be moving your grouping in the opposite direction of how you move the sight pin. Only move the sight pin about 5 mm (1/4 inch) at a time. Keep all other things consistent in your form.

If your grouping is too high up, then move the sight pin up.

If your grouping is too low down, then move the sight pin down.

If your grouping is too far right, then move the sight pin to the right.

If your grouping is too far left, then move the sight pin to the left.

The rule of thumb is chase your arrows.

## **Length of Archery Sessions**

An hour-long session is usually sufficient for a first time out. Sessions longer than an hour should include a break. If you take a break, a range officer MUST be responsible for supervising the equipment.

Generally, watch for youth who are tiring (declining accuracy, inability to draw the string back to the proper position). Any of these conditions will increase the risk of an accident. The more often archery is practiced, the more those specific muscle groups are developed, and archery time can be gradually increased.