NATIONAL ARCHERY IN THE SCHOOLS PROGRAM

BASIC ARCHERY INSTRUCTOR POCKET GUIDE

INTRODUCTION
SAFE RANGE SET UP
DETERMINING DOMINANT EYE
MAKING THE STRING BOW™
11 STEPS TO ARCHERY SUCCESS
COACHING TECHNIQUES
SAFETY ORIENTATION
RUNNING THE RANGE
NOMENCLATURE, INSPECTION, OPERATION, REPAIR & MAINTENANCE

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Changing lives, one arrow at a time ...

It started as a simple idea ... Teach kids the basics of archery as a part of school curriculum. But it has grown into so much more. The National Archery in the Schools Program has the ability to:

- Affect school attendance
- Increase self esteem
- Increase physical activity
- Translate into subject matter
- Appeal to all students
- Get kids out-of-doors
- Become an after-school activity
- Truly change lives!

NATIONAL ARCHERY IN THE SCHOOLS PROGRAM
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You can help!
BASIC ARCHERY INSTRUCTOR:

Chapter 1: INTRODUCTION

- Archery is thousands of years old.
- Today, archery is popular with millions of people.
- Archery is a life skill everyone can enjoy.
- Archery’s safety record is better than almost every sport.
- Archers who consistently practice proper shooting fundamentals enjoy life-long archery fun & success.
- Archery is an activity best taught, learned & practiced with a positive attitude.
Chapter 2: RANGE SET UP & SAFETY
Objectives: Set up a safe archery range.

Explain & Demonstrate: "Emergency whistle signal" - 5 or more Whistle Blasts and what to do in an emergency.

Range Lay-Out
Evaluate the location to determine a safe shooting direction
• Shoot away from pedestrian traffic flow.
• Lock and sign entryways.

Indoor Arrow Curtain Placement
• ≥1 NASP arrow length from walls and other hard objects.
• 3-6 inches draped on floor (8-15 centimeters).
• Loosely draped with folds along its length.

Outdoor Arrow Curtain Placement
• Use curtain to reduce lost arrows.
• Hang in an open, easily viewed area.
• Count arrows before shooting outdoors.

Target Placement (80 cm FITA)
• ≤1 NASP arrow length from arrow curtain.
• At least 2 NASP arrow lengths between target centers.

Laying Range Lines
• Target Line—2 yards or meters from targets.
• Shooting Line—5-7 yards or meters from targets.
• Waiting Line—4 yards or meters beyond the shooting line.

Equipment Placement
• Floor quivers on shooting line spaced ≥1 NASP arrow length.
• Bows racked between Shooting & Waiting Lines.
**Explain:** "**DRY FIRE**" **Hazard** - "Only draw a bow when an arrow is nocked on the bowstring and it is pointed safely towards the target. To shoot a bow without an arrow is called a dry-fire and can damage the bow and hurt people."

**Note:** A NASP arrow is 30 inches long (76 centimeters).

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**Diagram is not to scale**

Arrow Curtain

< NASP arrow length

Arrows

Targets Centers are approximately 2 NASP arrow lengths apart

Target Line - 2 yards or meters from targets

Entrance / Exit Locked & Signed

Quivers - spaced >1 NASP arrow length

Shooting Line - 5-7 yards or meters from targets

Waiting Line - 4 yards or meters beyond the shooting line

Bow Rack(s)
Chapter 3: DOMINANT EYE & MAKING A STRING BOW™

Objectives: Determine dominant eye and teach how to make and use a "string bow™."

Determining & Using the Dominant Eye
• Using the dominant eye allows the archer to keep both eyes open.
• Keeping both eyes open improves binocular and peripheral vision and balance for some people.

Point & Wink - with both eyes open, point at a small distant object with the index finger and alternatively wink eyes. When the dominant eye is closed the object will appear to move away from the pointing finger.

Point at the Instructor - with both eyes open students point their index finger at the instructor’s face. The instructor will see the student’s dominant eye above the pointing finger.

Aperture Method – with both eyes open students form a small triangle using both hands. With the triangle extended from the face, look at the instructor’s nose. The instructor will see the student’s dominant eye in the triangle.

Making the String Bow™
• “The String Bow™ is used to teach and practice proper archery technique and can prevent or cure shooting problems.”

1. Have each student straddle a “shooting line” (simulated or real).
2. Provide an 84-90 inch (213-229 centimeters) length of string.
3. Fold the string in half creating a loop at the mid-point.
4. Hook the "archer's groove" in the string loop.
5. Make a bow hand fist around the string.
6. Hang bow arm down along the side towards the target.
7. Hinge the bow arm up to eye level. The drawing arm elbow should be slightly higher than the bow arm and parallel to the ground.
8. Draw and anchor the index finger at the corner of the mouth.
9. Pinch the string where it enters the bow hand.
10. Tie a knot at this pinched point.
11. Tie a 2nd knot a hand's width from the 1st.
12. Check for correct draw length. The draw arm elbow should be slightly in front of a line drawn from the bow hand, through the anchor and beyond the draw arm elbow.
Chapter 4: 11 STEPS TO ARCHERY SUCCESS
Objectives: Teach 11 steps using the String Bow™ while emphasizing process over result.

- Every student should have properly fitted String Bow.
- Steps are taught using only a String Bow.
- Archers should be straddling a “line” at Stance.
  1. **Stance:** Open foot and shoulder width position.
  2. **Nock Arrow:** Grab below fletching, up & over a vertical bow.
  3. **Drawing Hand Set:** Hook the bowstring in the archer’s groove.
  4. **Bow Hand Set:** Center the bow’s grip under the lifeline of the relaxed bow hand. Bow hand knuckles should form 30-45 degree angle.
  5. **Pre-Draw:** Hinge the bow arm and drawing arm to eye level. Rotate bow arm elbow down and away.
  6. **Draw:** With draw arm parallel to the ground, smoothly pull the string towards the face.
  7. **Anchor:** Index finger tip at the corner of the mouth.
  8. **Aim:** Align the string and arrowrest and/or arrow point on the target.
  9. **Shot Set-Up:**
     - While the eye continues to aim... think about and...
     - Maintain active bow muscles
     - Using your back muscles, begin a slight rearward movement of the drawing shoulder, arm and elbow.
  10. **Release:** Remember the String Bow™
      - Relax the hooked fingers and the back of the drawing hand all at once.
11. **Follow Through/Reflect:** Remember the String Bow™

- The drawing hand continues reward, under the ear and painting the face, until the thumb touches or is near the shoulder. The drawing elbow should relax and hinge downward.
- The bow arm moves slightly forward, left, & down.
- Reflect - did the shot feel and look right?
Chapter 5: COACHING TECHNIQUES
Objectives: Teach how to observe and motivate the archer.

Coaching Positions
If on an archery range, students should be behind the waiting line. Instructor demonstrates the positions from the shooting line. Observe the 11 Steps to Archery Success from these positions:
1. “Face to Face”
2. “Behind the Archer’s Elbow”
3. “Behind the Archer’s Back”
4. “Well Behind the Archer’s Elbow”

Positive Reinforcement & Feedback – “CPR”
Students should be behind waiting line and instructor demonstrating safe technique from the shooting line.
1. Compliment: Provide a positive, reinforcing comment precisely describing what the archer did correctly.
2. Positive Correction: Using positive language, describe one thing the archer should do to improve.
3. Review: Validate by providing feedback when the improvement is achieved.

Managing Disruptive Students
Students should be behind waiting line. Violation of the toes behind the waiting line is effective to demonstrate this process.
1. Repeat the rule.
2. Make eye contact with student and say student’s name.
3. Enlist the student’s help — arrange a cooperative signal when all are following the rule.
4. Begin reducing or removing the student’s shooting privileges until the rule is followed.
Chapter 6: SAFETY ORIENTATION
Objectives: Learn how to safely use the archery range.

Set-Up: Students should be behind the waiting line. Arrows (3) should only be in the instructor’s demonstration quiver. Targets should be blank.

Introduction
1. “Welcome to international-style archery instruction. Archery is safe and fun.”
2. Explain Two Safety Rules:
   a. Emergency — 5 or more Whistle Signal
   b. Explain Dry Fire — “Only shoot a bow…”

Demonstrating the Shot
3. Instructor starts behind the waiting line.
4. “/ will demonstrate how to safely use the range.”
6. Say (and do) “Walk”.
7. Walks and point out right hand and left hand bows.
8. Straddle line and place bow on toe
9. Blow 1 whistle signal to “shoot”.
10. Name & demonstrate 11 Steps to Archery Success.
11. Demonstrate dropped arrow and explain rule.
12. Return bow to the rack & walk behind waiting line.

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Supervising the Shot
13. Instructor is in front of the waiting line.
14. “Now it is you’re turn to shoot.”
15. Instructor checks for toes behind the waiting line.
16. Blow 2 whistles — says “get bow”.
17. Walk, straddle shooting line, & put bows on toes.
18. Advise students their first shots will be supervised.
19. Start with archer at the left end of the shooting line.
20. Blow 1 whistle signal to “shoot”.
21. Then place 3-6 arrows in 1st student’s quiver.
22. Have the archer perform and say the 11 Steps.
23. Help archer through 1-6 shots.
24. If archer needs more work, refer to the String Bow™.
25. Direct archers to re-rack bow and walk behind the waiting line when finished shooting.
26. Repeat for all archers.

Retrieving Arrows
27. “Now, let’s safely retrieve arrows.”
28. All archers behind the waiting line.
29. Blow 3 whistle signal — say, “go get arrows.”
30. Remind students to walk and stop at target line.
31. Instructor places dropped arrows at target or in storage quiver.
32. Demonstrate supporting target, pull & carry arrows.
33. Direct one student per target to retrieve arrows.
34. Have students return arrows to quiver and walk behind the waiting line.
35. Instructor checks behind curtain for students and arrows.
36. Instructor is the 1st & last to arrive and leave the targets.
RUNNING the RANGE
Lesson Objective: Illustrate the difference in standard range operation and the safety orientation practical. Without demonstrations, practice running the range using whistle signals and range lines.

Archery Range and Archer Preparation
1. Check for safe range set-up.
2. No one is down range or behind the arrow curtain.
3. Arrows (3-6) are in quivers.
4. Targets are turned to show scoring rings.
5. Create archer groups if insufficient space or equipment for all.
6. Direct 1st group to stand with toes behind the waiting line.
7. Advise waiting groups to practice with String Bow™.
8. Remind shooters to perform the 11 Steps to Archery Success.
9. Remind shooters to remember the String Bow™ lessons.

2 Safety Rule Reminders
1. Demonstrate the emergency whistle signal safety rule.
2. Re-state the “dry-fire” safety rule.

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Operate the Range
1. Check for toes behind the waiting line.
2. Blow 2 whistle blasts and say, “get bow”.
3. Remind archers to walk, straddle shooting line, and place “bows on toes”.
4. Blow 1 whistle and say, “shoot”.
5. As archers finish shooting, re-rack bows, & walk behind waiting line.
6. When all archers are behind waiting line, signal 3 whistles to “go get arrows”.
7. Instructor is the last to leave targets after checking behind the curtain.
8. Continue until all groups have shot and retrieved arrows.

Emergency Signal, Scoring Arrows, and Coaching
1. Archers should practice coaching using “CPR” technique.
   a. Pair archers with coaches (A-B groups).
   b. When archers have bows on toes, call coaches forward.
   c. Blow 1 whistle signal to “shoot”.
   d. Coaches use CPR to help archers perfect 11 Steps to Archery Success.
   e. When archer completes shooting, archer and coach return behind the waiting line.
2. Explain how arrow scoring is conducted – score 1st and then pull.
3. Explain how archers treat the target line as a “speed bump”.
   a. All archers pause at the target line.
   b. If more than one archer/target – one pulls & other waits turn behind target line.
4. Safely, simulate an emergency.
   a. Blow the emergency whistle signal & react correctly.
   b. Resolve the emergency & resume shooting.
Chapter 7 & 8: NOMENCLATURE, INSPECTION, OPERATION, REPAIR & MAINTENANCE.

The "Genesis" Compound Bow

Objectives: Teach names of bow parts and how to inspect, maintain, repair, and operate the "Genesis" compound bow.

- Suggest that archers utilize archery shops to maintain and repair bows.

NOMENCLATURE
- Students should be able to touch bow as parts are named.
- Show and name parts of the bow.
- Have students review the part names.

SAFETY INSPECTION
- Discuss when bows should be inspected.
- Bowstring & cables – frays, breaks, in tracks, and on posts.
- Bow limbs & riser - cracks.
- Cable guard and slide.
- Arrow rest and nock locator.
- "E"-clip on each side of cam axle.
- Both limbs cranked up or down equally – check gap between limb pockets and riser.
- Direct students to bring damaged bows to your attention.

OPERATION
- Explain draw weight range (10-20 pounds [4.5-9 kg]) of the Genesis™ bow.
- Draw weight adjustment -1.5 pounds (.6 kg) per turn/limb.
- Realigning out-of-track string.

MAINTENANCE & REPAIR
- Waxing the bowstring & cables.
- Replacing the nock locator – tied knot vs. brass ring.
The Full-Length 1820 Aluminum Arrow

Objectives: Teach names of arrow parts and how to inspect and repair the full-length 1820 aluminum arrow.

- Suggest that archers utilize archery shops for arrow repair.
- Explain why NASP uses aluminum rather than carbon arrows.

NOMENCLATURE

- Show and name six parts of the arrow — (shaft, nock, vanes, index vane, point, & crest).
- Make sure archer sees where “1820” size is designated.

SAFETY INSPECTION

- Discuss when arrows should be inspected.
- Inspect shaft for cracks, bends, & dents.
- Inspect for missing or badly damaged point.
- Inspect for missing or damaged nock.
- Inspect for missing or damaged vanes.
  - Explain minor (safe to shoot) vs. major damage.

MAINTENANCE & REPAIR

- Discard arrows with damaged shafts.
- Replace missing or badly damaged points.
- Remove & replace damaged nock.
  - With knife and/or pliers, feather glued edge and twist off.
  - Drop of glue on shaft rather than in nock.
  - Align nock with index vane before gluing.
- Remove & replace a damaged vane.
  - Discuss cleaning shaft.
  - Keep dirt, dust and finger oils from surfaces to be glued.
  - Make sure fletching jig and clamp are set up to fit the arrow and vane.
  - Use tiny, continuous flow of glue on vane.
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