

# 4-H S.A.F.E.T.Y. *Fundamentals of Shotgun Shooting Equipment & Handling*



## S.A.F.E.T.Y.

SAFE ARCHERY & FIREARMS EDUCATION & TRAINING FOR YOUTH

It is important that the beginning shotgun program participant meet with quick success. Carefully followed, the steps outlined in this teaching plan help lead the student and the instructor to realize success. Instructions are simple and include effective techniques, many of which the lifelong student-turned-instructor may have forgotten.

### Objectives

1. To develop in the 4-H participants an understanding of safety.
2. To develop an understanding of shotgun shooting fundamentals.
3. To teach knowledge of shotgun parts and their operation.
4. To develop an understanding of clay target-throwing traps and equipment.
5. To develop the ability to recognize and follow a clay target in flight.
6. To develop the ability to assume a proper shooting stance and to hold and shoulder a shotgun.
7. To develop the ability to break a clay target.

### Teaching Time

Two to four sessions

### Materials and Equipment

- Shotshell cut-a-ways.
- Drawing that describes a choke.
- Powder, shot, shot columns.
- Pattern paper.
- Different types of shotguns.

### History of the Shotgun

The great-grandfather of the shotgun is the same matchlock that was brought to this country by the earliest settlers. It was a muzzleloader named for the match—a wicklike piece of material—that was lighted before use and then lowered by trigger action into a priming pan of loose gun powder.

Its successor was the wheel lock, the first firearm to use flint and steel to ignite the priming powder. It worked much as today's cigarette lighter but had to be wound up with a key before use.

While these arms were not designed as shotguns, they were the common shoulder arms of their day and were used for ball and shot loads.

The first guns similar to shotguns were "fowling pieces," so named because they were used for bird and small game hunting. These came into being in the 1600s

with the advent of the flint lock. The same type of gun was made in the Mediterranean region, but it was called the Miquelet Lock. In Great Britain and America, the flint lock fowling piece was made with an extra-long barrel and was called a "long fowler." These guns were in use until about 1850.

The tube lock was the immediate successor to the flint lock but did not assume great importance. The percussion lock was introduced in Great Britain about 1820. While the fowling piece was still muzzle-loaded, its performance was much more dependable with this comparatively weatherproof percussion ignition system.

Breechloading hinge action shotguns came into use between 1850 and 1860. The forerunner to these shotguns was the Lefauchaux breechloader made in 1836. The first of these guns to achieve popularity used a pinfire cartridge—the hammer strikes a pin that is an integral part of the cartridge, and the pin explodes an internal

primer. Some of these pinfire shotguns are still used occasionally in Europe.

The centerfire breechloader, using a cartridge comparable to the one in use today, was first introduced about 1860 in England. These early guns had external hammers and bottom bolting levers. Experimentation was continuous and by the early 1900s most gunmakers were making the "hammerless" internal hammer and placing the lever on top.

The slide or pump action was invented about 1880. It has since become one of the most popular of all shotgun actions. The semi-automatic action is the brainchild of John Browning, who also worked on rifle and pistol actions. Other developments in shotguns may be of interest. The earliest multiple barrel guns were seen in Germany in the 1600s. Choke boring, although in use earlier, was perfected to a dependable degree by Greener, an English gunmaker in the 1870s. Ejectors first appeared on shotguns during this same period.

## **Presentation**

### ***I. Shotgun Sports***

- A. General recreation
- B. Hunting
- C. Skeet shooting
- D. Trap shooting

### ***II. Shotgun Parts***

- A. Stock
  - 1. Butt
  - 2. Comb
  - 3. Grip
  - 4. Forearm
  
- B. Action
  - 1. Receiver
  - 2. Bolt
  - 3. Trigger
  - 4. Trigger guard
  - 5. Safety
  - 6. Action release
  - 7. Magazine
  
- C. Barrel
  - 1. Muzzle and breech
  - 2. Chamber
  - 3. Rib and bead
  - 4. Choke

### ***III. Shotgun Action Types***

- A. Pump
- B. Semi-auto
- C. Hinge
  - over and under
  - single barrel
  - side by side

### ***IV. Chokes (controls shot pattern)***

- A. Full
- B. Improved modified
- C. Modified
- D. Skeet
- E. Cylinder bore

## **Application (for the leader)**

- Different shotgun sports require different types of shotguns.
  
- Show appropriate audiovisual to illustrate shotgun sports variety.
  - 1. Field grade
  - 2. Trap gun
  - 3. Skeet gun
  
- Demonstrate
  - 1. Handle with which to hold and direct the gun.
  - 2. Parts on shotgun.
  - 3. Use shotgun to demonstrate.
  - 4. Have participants learn by quizzing.
    - 1. Shotgun parts.
    - 2. Parts that hold and load and eject the ammunition.
    - 3. Use shotgun on diagram to demonstrate.
      - 1. To direct projectile (shot) toward target.
      - 2. Inside of barrel is smooth—show inside of barrel.
  
- Show the types of shotguns and demonstrate their operations with guns or appropriate audiovisuals.
  
- Discuss
  - 1. Shot shell patterns
    - Construct pattern board.
    - Draw 30-inch circle.
    - Fire shot at circle and observe shot spread.
    - Demonstrate using different chokes.
  - 2. Show literature showing importance of choke.
  - 3. Show how to tell choke of shotguns.

### ***V. Shotgun Gauges (size of ammo)***

- A. 10
- B. 12
- C. 16
- D. 20
- E. .028
- F. .410 (cal)

- 1. Gauge definition: number of round lead balls the size of bore diameters that equals 7 pounds when weighed together.
- 2. .410 is only one measured as caliber.
- 3. Color-coding, indent, stamp on shell, and base.
- 4. Show where to find gauge on gun.

### ***VI. Shot Shell Parts***

- A. Shell
- B. Primer
- C. Powder
- D. Wad
- E. Shot

- 1. Show different parts.
- 2. Use cutaway view of a shot shell showing relative sequence of assembly.
- 3. High and low base, magnum, and standard loads.
- 4. Powder charge is determined by dram equivalents.

### ***VII. Shot Size***

Identification number

- 1. Discuss the larger the number, the smaller the shot number in a given load.
- 2. Show shot of different size.

### ***VIII. Shotgun Safety Rules***

#### **A. Basic**

- 1. Keep muzzle pointed in a safe direction.
- 2. Keep finger off trigger.
- 3. Keep action open and unloaded.
- 4. Treat every gun as if it was loaded.

- 1. Review and discuss safety.
- 2. Demonstrate safe handling.
- 3. Students demonstrate what they have learned (handling, open and close action).
- 4. Reinforce safety points throughout entire program.

#### **B. Safety rules for specific shotgun games or hunting should be reviewed at each section.**

#### **C. Protective Equipment**

- 1. Eye protection
- 2. Ear protection
- 3. Billed cap

- Demonstrate and explain use of equipment.
  - 1. Eye—protect eyes in an emergency.
  - 2. Ears—protect against noise.
  - 3. Helps keep foreign material off face.

#### **D. Accessories**

- 1. Gun case (may be required; explain)
- 2. Shooting vest
- 3. Shell pouch
- 4. Ammo carry case

- Demonstrate use

### ***IX. Care of Shotgun Equipment***

- A. How to Clean Shotgun
- B. Assembly

## ***X. Clay Target Throwing Traps/Equipment***

Learning the safe use of clay target traps is important.

### A. Materials and Equipment

- One trap per three students
- Clay targets

### B. Location: open field

### C. References: Trap owner's manual

- Present the types of traps to students.

1. Ground
2. Ground with pivot seat
3. Hand thrower

- Have students set and stake traps into throwing position.

1. Layout a shooting line.
2. Place traps on line 20 feet apart.
3. Mark stations for loader, instructor, and student.

- Demonstrate to students how to set spring tension, cock, load, and release throwing arm.

- Have students practice.

- Position students behind traps in a straight line parallel to shooting line. Assign a student to load and release trap.

1. Learn to watch target

- Ask students to watch target as it flies from trap until it drops.
- Call for target—PULL.

2. Check for eye dominance. Locate a distant object and point out to students. Ask students to make a circle using fingertips of both hands, extend arms, place over the distant object, and draw back to face. The circle should cover the master eye.

3. Watch target with finger point.

- Tell students to watch the target with both eyes open and point finger at target.
- Release target on command—PULL.
- Repeat exercises several times. Observe students closely.

4. Watch target with finger point and bang.

- Tell students to watch target with both eyes open, cover target with finger point, and say BANG the instant the finger touches the target.
- Release bird on command—PULL.
- Repeat several times. Observe students and note "slow bangers."
- Tell students some are slow to "bang," which means they are slow getting on target.
- Repeat exercise. Note that the group will begin to "bang" almost in unison.

## ***XI. Recognizing and Following Clay Targets in Flight***

The student's ability to eventually break targets depends on his/her ability to follow the target.

### A. Materials and Equipment

- One trap per three students
- Clay targets

### B. Location: open field

## ***XII. Proper Shooting Stance and Holding and Shouldering a Shotgun***

It is important the students learn proper stance, shouldering techniques, and safety procedures.

### **A. Materials and Equipment**

- Traps
- One shotgun per three students
- Ammunition
- Clay targets
- Racks

### **B. Location: open field**

- Boxer Stance
  1. Boxer stance is a good stance.
  2. Demonstrate to students and show how hands are in position to hold gun.
  3. Have students practice
- Instructor-pupil practice. Assign a student, instructor, and loader to each trap. One instructor can supervise several instructor-pupil teams.
  1. Have student instructor get a gun from rack, action open. Impress that instructor is responsible for the gun and the student.
  2. Instructor checks student's stance.
  3. Instructor hands student gun and helps get gun shouldered and in position.
  4. When student is ready, trap is loaded by loader.
  5. Dry swing on target. Action open, student calls PULL. Student follows with gun until target drops. Repeat. Start student with gun barrel low.
  6. Dry fire on target. Action closed-click. Student calls PULL and pulls trigger when shotgun is aligned with target.
  7. Rotate students and repeat steps 1–6.

## ***XIII. Breaking a Clay Target***

Proceed to this objective only when you feel the students are confident with dry firing.

### **A. Materials and Equipment**

- Shotguns
- Ammunition
- Racks
- Traps
- Targets

### **B. Location: open field**

- Ball and Dummy Method
  1. The instructor holds the shotgun and instructs the student to look down range.
  2. The instructor chooses to load or not load the shotgun. Close the action.
  3. Instructor hands gun to the student and says the gun is loaded.
  4. Trap is loaded.
  5. Student calls PULL when ready, swings, and fires. Note: It is best for the instructor not to put a shell in the gun until the student is believed to be on target.
  6. Instructor observes for trigger slap and flinching.
  7. As student shoots, instructor should continue to alternate either loading or not loading the gun.
  8. Rotate students and repeat exercise.

## **Summary and Evaluation**

Students should demonstrate and discuss knowledge of shotgun parts and handling. This can be done using written or oral exams. The student needs to know that safety must be practiced throughout his/her shooting career.

## **Sharing Activities**

Initiate responsibility in each student to remind peers of safety rules and to correct each other when these rules are not obeyed. Students should take reminders as constructive.

## **References**

NRA Basic Shotgun Shooting Manual, NRA, Washington, D.C.

Hunter Safety Manual. See State DNR Program.

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