

Rifle Shooting

Merit Badge Workbook

Merit badges are earned by doing: reading the pamphlet, practicing the skills, and showing your counselor what you have learned.
This workbook gives you a place to organize your notes and track your progress along the way.
Merit badge counselors may not require the use of this or any similar workbook.
You still must satisfy your counselor that you can demonstrate each skill and have learned the information.
Use the space under each requirement to note what you have done and what you want to talk about, not to write out full answers.
When a requirement says discuss, show, tell, explain, or demonstrate, that is what you must do.
No one may add to or subtract from the official requirements found on scouting.org (Guide to Advancement 7.0.4.8).
Scouting America last updated this badge's requirements page on May 5, 2026.
Requirements change from time to time. Double-check scouting.org before you start.

Scout's name: _____ Unit: _____ Date started: _____

Counselor's name: _____ Phone no.: _____ Email: _____

Links marked "Scouting America resources" are the ones Scouting America shares on its official badge page.
Links marked "ScoutSmarts" open the matching part of Cole's guide. This workbook is unofficial and not endorsed by Scouting America.

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1. Do the following:

(a) Explain what a projectile is, and why any device that shoots a projectile at high speed must be handled with care and respect, and used only in approved locations.

Scouting America resources: High-Speed Collisions in Space—Experiments with a Carrot Gun (video)
NRA Women—How Ammo Works (video)

What a projectile is and why it needs care

(b) Explain the basic rules of safe gun handling that apply to all firearms.

Scouting America resources: NRA Gun Safety Rules (website) · Mechanical Safety (photo)

The basic rules of safe gun handling for all firearms

(c) Describe how you would react if a friend visiting your home asked to see your or your family's firearm.

ScoutSmarts: Requirement 1c explained

How I would react

(d) Explain the need for, types, and use of eye protection and hearing protection.

ScoutSmarts: Requirement 1d explained

Eye protection: why it is needed, types, and how to use it

Hearing protection: why it is needed, types, and how to use it

(e) Explain the main points of the laws for owning and using guns in your community and state.

Scouting America resources: State Laws for Gun Ownership and Use (website) · **ScoutSmarts:** Requirement 1e explained

My community | My state

Main points of the laws for owning and using guns where I live

(f) Explain how hunting is related to the wise use of renewable wildlife resources.

ScoutSmarts: Requirement 1f explained

How hunting is related to the wise use of renewable wildlife resources

(g) Successfully complete a state hunter education course, or obtain a copy of the hunting laws for your state, then do the following:

Scouting America resources: NRA Hunter Education (website)

- ☐ Completed a state hunter education course
- ☐ Got a copy of my state's hunting laws

Date | Course name or where I got the laws

(1) Explain the main points of hunting laws in your state, and any special laws on the use of guns and ammunition, AND

Main points of my state's hunting laws, and special laws on guns and ammunition

(2) List the kinds of wildlife that can be legally hunted in your state.

Kinds of wildlife that can be legally hunted in my state

(h) Explain to your counselor the proper hygienic guidelines followed while shooting.

ScoutSmarts: Requirement 1h explained

Hygienic guidelines I follow while shooting

(i) Identify places in your community where you can join or be a part of range and target activities.

Places in my community for range and target activities

Place	What I could join or take part in

(j) Discuss with your counselor a list of sources you could contact for information on firearms and their use.

ScoutSmarts: Requirement 1j explained

Sources I could contact for information on firearms

Source	What I could learn from it

Requirement 1 completed on _____ counselor initials _____

2. Working under the supervision of a certified National Rifle Association (NRA) rifle instructor and a certified range safety officer, at a nationally authorized camp property or at a commercial firearm range (as defined in the Scouting America National Range and Target Activities Manual), do ONE of the following options:

NRA rifle instructor _____ Range safety officer _____

Camp or range _____ Dates _____

☐ **Option A—Rifle Shooting (Modern Cartridge Type). Do ALL of the following:**

(1) Identify the three main parts of a rifle, and tell how they function.

Scouting America resources: Common Types of Rifle Actions (photo) · Parts of a Rifle (photo) · Sight Reticles (photo) Firing Sequence (photo)

Main parts of a rifle

Part	How it functions

(2) Identify and demonstrate the rules for safely storing and handling a rifle.

Scouting America resources: Rules for Using or Storing a Gun (PDF)

Rules for safely storing and handling a rifle

Date demonstrated _____ Where _____

(3) Identify the two types of cartridges, their parts, and how they function.

Scouting America resources: Rimfire Cartridge (photo) · Centerfire Cartridge (photo)

The two types of cartridges

Type	Its parts	How it functions

(4) Explain to your counselor what a misfire, hangfire, and squib fire are, and explain the procedures to follow in response to each.

When a round does not fire as expected

Problem	What it is	Procedure to follow
Misfire		
Hangfire		
Squib fire		

(5) Explain and demonstrate the five fundamentals of shooting a rifle: aiming, breath control, hold control, trigger control, and follow-through.

The five fundamentals of shooting a rifle

Fundamental	How I explain it
Aiming	
Breath control	
Hold control	
Trigger control	
Follow-through	

Date demonstrated _____ Where _____

(6) Demonstrate the knowledge, skills, and attitude necessary to safely shoot a rifle on a range, including understanding and following range procedures and commands.

Date _____ Range _____ Instructor _____

(7) Explain the basic safety rules for cleaning a rifle, and identify the materials needed.

Basic safety rules for cleaning a rifle

Materials needed

(8) Demonstrate how to clean a rifle properly and safely.

Date demonstrated | Where

(9) Discuss what points you would consider in selecting a rifle.

Points I would consider

(10) Using a bolt-action .22 caliber rimfire rifle, and shooting from a benchrest or supported prone position at 50 feet, fire five groups (three shots per group) that can be touched by a quarter. Using these targets, explain how to adjust sights to zero a rifle.

My groups: three shots each at 50 feet

Group	Date	Benchrest or prone	Touched by a quarter?
1			
2			
3			
4			
5			

How to adjust sights to zero a rifle, using these targets

(11) Adjust sights to center the group on the target and fire five groups (five shots per group). In the event that your instructor determines it is not practical to adjust the sights—for instance, on a borrowed rifle—you may explain (rather than doing) how to adjust the sights, and then fire five groups (five shots per group) in which all shots can be touched by a quarter. According to the target used, each shot in the group must meet the following minimum score: A-32 targets: 9; A-17 or TQ-1 targets: 7; A-36 targets: 5. Note: Other suitable NRA targets may be used if the specified targets are unavailable.

- ☐ I adjusted the sights
- ☐ I explained how to adjust the sights

My groups: five shots each

Group	Date	Target used	Lowest shot score	Touched by a quarter?
1				
2				
3				
4				
5				

☐ **Option B—Air Rifle Shooting (BB or Pellet). Do ALL of the following:**

(1) Identify the three main parts of an air rifle, and explain how they function.

Main parts of an air rifle

Part	How it functions

(2) Identify and demonstrate the rules for safely storing and handling an air rifle.

Scouting America resources: Rules for Using or Storing a Gun (PDF)

Rules for safely storing and handling an air rifle

Date demonstrated _____ Where _____

(3) Identify the two most common types of air rifle ammunition.

Scouting America resources: Types of Air Rifle Ammunition (photo)

The two most common types of air rifle ammunition

Type	Notes

(4) Explain and demonstrate the five fundamentals of shooting an air rifle: aiming, breath control, hold control, trigger control, and follow-through.

The five fundamentals of shooting an air rifle

Fundamental	How I explain it
Aiming	
Breath control	
Hold control	
Trigger control	
Follow-through	

Date demonstrated _____ Where _____

(5) Demonstrate the knowledge, skills, and attitude necessary to safely shoot on a range, including understanding and following range procedures and commands.

Date _____ Range _____ Instructor _____

(6) Explain the basic safety rules for cleaning an air rifle, and identify the materials needed.

Basic safety rules for cleaning an air rifle

Materials needed

(7) Demonstrate how to clean an air rifle properly and safely.

Date demonstrated _____ Where _____

(8) Discuss what points you would consider in selecting an air rifle.

Points I would consider

(9) Using a BB gun or pellet rifle and shooting from a benchrest or supported prone position at 15 feet for BB guns or 33 feet for pellet rifles, fire five groups (three shots per group) that can be touched by a quarter.

My groups: three shots each

Group	Date	BB gun or pellet rifle	Distance	Touched by a quarter?
1				
2				
3				
4				
5				

(10) Adjust sights to center the group on the target and fire five groups (five shots per group). In the event that your instructor determines it is not practical to adjust the sights—for instance, on a borrowed air rifle—you may explain (rather than doing) how to adjust the sights, and then fire five groups (five shots per group) in which all shots can be touched by a quarter. According to the target used, each shot in the group must meet the following minimum score: BB rifle at 15 feet (or 5 meters) using TQ-5 targets: 8; Pellet rifle at 25 feet using TQ-5 targets: 8; Pellet rifle at 33 feet (or 10 meters) using AR-1 targets: 6. Note: Other suitable NRA targets may be used if the specified targets are unavailable.

- ☐ I adjusted the sights
- ☐ I explained how to adjust the sights

My groups: five shots each

Group	Date	Target and distance	Lowest shot score	Touched by a quarter?
1				
2				
3				
4				
5				

☐ **Option C—Muzzleloading Rifle Shooting. Do ALL of the following:**

(1) Discuss with your counselor a brief history of the development of muzzleloading rifles.

Scouting America resources: A Quick History of Muzzleloading Rifles (video)

A brief history of muzzleloading rifles

(2) Identify principal parts of muzzleloading rifles and discuss how they function.

Scouting America resources: Cap Lock Action (photo) · Flintlock Action (photo) · Matchlock Action (photo) Wheel Lock Action (photo)

Principal parts of muzzleloading rifles

Part	How it functions

(3) Identify and demonstrate the rules for safely storing and handling a muzzleloading rifle.

Scouting America resources: Rules for Using and Storing a Gun (photo)

Rules for safely storing and handling a muzzleloading rifle

Date demonstrated | Where

(4) Identify the various grades of black powder and explain their proper and safe use.

Grades of black powder

Grade	Proper and safe use

(5) Discuss proper safety procedures pertaining to black powder storage.

Safety procedures for storing black powder

(6) Discuss proper components of a load.

Proper components of a load

(7) Identify proper procedures and accessories used for safely loading a muzzleloading rifle.

Procedures for safely loading

Accessories used

(8) Identify the causes of a muzzleloading rifle's failure to fire, and explain what a misfire, hangfire, and squib fire are. Explain and demonstrate proper preventive measures, and the procedures to follow in response to each.

Causes of a muzzleloading rifle's failure to fire

Misfire, hangfire, and squib fire

Problem	What it is	Preventive measures	Procedure to follow
Misfire			
Hangfire			
Squib fire			

Date demonstrated | Where

(9) Demonstrate the knowledge, skills, and attitude necessary to safely shoot a muzzleloading rifle on a range, including understanding and following range procedures and commands.

Date | Range | Instructor

(10) Explain the basic safety rules for cleaning a muzzleloading rifle, and identify the materials needed.

Basic safety rules for cleaning a muzzleloading rifle

Materials needed

(11) Demonstrate how to clean a muzzleloading rifle properly and safely.

Date demonstrated | Where

(12) Discuss what points you would consider in selecting a muzzleloading rifle.

Points I would consider

(13) Using a muzzleloading rifle of .45 or .50 caliber and shooting from a benchrest or supported prone position, fire three groups (three shots per group) at 50 feet that can be covered by the base of a standard-size soft drink can.

My groups: three shots each at 50 feet

Group	Date	Caliber	Benchrest or prone	Covered by a can base?
1				
2				
3				

(14) Adjust the sights to center the group on the target and fire three groups (five shots per group). In the event that your instructor determines it is not practical to adjust the sights—for instance, on a borrowed muzzleloading rifle—you may explain (rather than doing) how to adjust the sights, and then fire three groups (five shots per group) in which all shots can be covered by the base of a standard-size soft drink can. According to the target used, each shot in the group must meet the following minimum score: at 25 yards using NRA A-23 or NMLRA 50-yard targets: 7; at 50 yards using NRA A-25 or NMLRA 100-yard targets: 7. Note: Other suitable NRA targets may be used if the specified targets are unavailable.

- ☐ I adjusted the sights
- ☐ I explained how to adjust the sights

My groups: five shots each

Group	Date	Target and distance	Lowest shot score	Covered by a can base?
1				
2				
3				

Requirement 2 completed on | counselor initials

3. Identify how you could apply the skills and knowledge of safe and responsible use of firearms you learned in this merit badge to pursue a career or personal hobby. Research the additional training and experience you would need, expenses you may incur, and the affiliation with organizations that could help you maximize the positive impact and enjoyment you gain from it. Discuss what you learned with your counselor, and share what short-term and long-term goals you might have if you pursued this.

Career or hobby I picked _____ Date discussed _____

How I could use what I learned in this career or hobby

What I researched

Topic	What I found
Additional training	
Experience I would need	
Expenses I may have	
Organizations that could help	

My goals if I pursued this

Goals	What they are
Short-term goals	
Long-term goals	

Requirement 3 completed on _____ counselor initials _____

Counselor sign-off

Your counselor signs your blue card or approves the badge in Scoutbook, and your unit records it. This line is for your own records.

Counselor's signature _____ Date completed _____

Official Scouting America resources

Scouting America resources: Rifle Shooting merit badge page (requirements and resources)
Rifle Shooting merit badge pamphlet (free PDF) · All merit badges · **ScoutSmarts:** Rifle Shooting Merit Badge Guide

Made by Cole at ScoutSmarts.com, an Eagle Scout who loves helping Scouts.
Spot an error or a requirement change? Tell me at scoutsmarts.com/contact.
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