ACKNOWLEDGMENTS

This project was revised by Dennis L. Elliott and Dr. Robert L. Horton, Extension 4-H specialists at The Ohio State University. The original project was prepared by Bob Carlson, 4-H gun club advisor for the Newton Duck Creek Travelers, Newton Falls, Ohio, under the guidance of Paul zumFelde, county Extension agent, 4-H, and Mrs. Margaret Spletzer, head advisor for the Newton Duck Creek Travelers and 4-H program assistant.

CONTENTS

Member Project Guide...3
  Introduction...6
  1. Background on Guns...7
  2. Ammunition and Parts of Your Gun...10
  3. Gun Safety at Home...16
  4. Aiming, Breathing, and Trigger Squeeze...20
  5. Shooting Positions...22
    6. Equipment...26
    7. Range Firing...29

Appendices
  A: Additional Gun Safety Opportunities...30
    B: References...30

Copyright © 1996, The Ohio State University

Ohio State University Extension embraces human diversity and is committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, sexual orientation, or veteran status. This statement is in accordance with United States Civil Rights Laws and the USDA.

Keith L. Smith, Associate Vice President for Agricultural Administration; Associate Dean, College of Food, Agricultural, and Environmental Sciences; Director, Ohio State University Extension; and Gist Chair in Extension Education and Leadership.

For Deaf and Hard of Hearing, please contact Ohio State University Extension using your preferred communication (e-mail, relay services, or video relay services). Phone 1-800-750-0750 between 8 a.m. and 5 p.m. EST Monday through Friday. Inform the operator to dial 614-292-6181.

6/13—1.2M—P74811
MEMBER PROJECT GUIDE

PROJECT BACKGROUND

This beginning-level project is a one-time experience for 9- to 14-year-old members. A parent/guardian (or a responsible adult approved by a parent/guardian) must supervise any 4-H member who chooses to take this project. Older youth with no experience or limited knowledge of guns may also begin with this project. There is no time limit to complete this project.

Members, especially those who wish to exhibit at the county fair, are reminded to check county project guidelines (if any) for additional requirements; however, a member does not have to take part in the county fair to complete this project. Participating in the county fair is simply one way to enhance a member’s project experience.

Members who complete this project and desire to go beyond its scope are encouraged to work with an Ohio 4-H certified shooting sports instructor. Please contact your county Extension office to see if a shooting sports instructor or club is available in your area.

GENERAL PROJECT GUIDELINES

1. Complete the Planning Your Project section of this Member Project Guide.
2. Explore all Interest Areas. Each numbered chapter (1 through 7) constitutes an Interest Area.
3. Within each Interest Area, complete all of the project activities.
4. Plan to take part in at least two (2) Project Learning Experiences.
5. Become involved in at least two (2) Leadership/Citizenship activities.
6. Write a one-page report telling what you did and learned through this project.
PLANNING YOUR PROJECT

Step 1: Interest Areas
Explore all of the Interest Areas listed below. As you begin to explore an Interest Area, place the current date (month/year) next to it.

<table>
<thead>
<tr>
<th>DATE STARTED (MONTH/YEAR)</th>
<th>INTEREST AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Background of Guns, page 7</td>
</tr>
<tr>
<td></td>
<td>2. Ammunition and Parts of Your Gun, page 10</td>
</tr>
<tr>
<td></td>
<td>3. Gun Safety at Home, page 16</td>
</tr>
<tr>
<td></td>
<td>4. Aiming, Breathing, and Trigger Squeeze, page 20</td>
</tr>
<tr>
<td></td>
<td>5. Shooting Positions, page 22</td>
</tr>
<tr>
<td></td>
<td>6. Equipment, page 26</td>
</tr>
<tr>
<td></td>
<td>7. Range Firing, page 29</td>
</tr>
</tbody>
</table>

Step 2: Project Activities
Within each Interest Area, answer all of the Review Questions. Also plan to perform all of the activities listed. Have your parent or advisor initial and date what you complete.

Step 3: Learning Experiences
Take part in at least two (2) of the sample Learning Experiences listed below. Plan your involvement in the chart (Report of Learning Experiences) provided. Before starting your project, enter your (2) choices in the Plan To Take Part In section. As soon as you have completed an activity, record what you did and when. Learning Experiences may be added or changed at any time.

SAMPLE LEARNING EXPERIENCES
Demonstration | Illustrated talk | Exhibit
Radio/TV presentation | Speech | Gun safety training
Gun safety program | Tour | County project judging
Project meetings | Field trip | Workshop

REPORT OF LEARNING EXPERIENCES
Plan to take part in | What you did | Date
Example: Demonstration | Presented how to properly load a gun to my 4-H club. | 4/10
Step 4: Leadership/Citizenship Activities

Check the activities you wish to do, or plan your own in the spaces provided. Plan to do at least two (2). Keep track of your progress by dating (month/year) what you complete. Leadership/Citizenship activities may be added or changed at any time.

<table>
<thead>
<tr>
<th>DATE COMPLETED (mo/yr)</th>
<th>PLAN TO DO</th>
<th>LEADERSHIP/CITIZENSHIP ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Encourage someone to take a 4-H gun safety project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Help someone with his/her gun safety project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teach club members something special you learned about gun safety.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arrange to have someone visit your club and talk about gun safety.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arrange for club to visit a gun store. Have salesperson talk about different guns, their actions, and ammunition.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Display poster on gun safety during National Gun Safety Week.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arrange for a Hunter Education Course, in which a local or district wildlife officer or an instructor certified by the State Department of Natural Resources administers an exam to your club members.</td>
</tr>
</tbody>
</table>

Plan additional Leadership/Citizenship activities below:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PROJECT COMPLETION AND AWARDS

Once you complete this project, write a one-page report telling what you did and learned. Have your parent/guardian or project advisor review your experiences with you. For your efforts, you may receive a special 4-H project completion award. Advisors should refer to the local county 4-H program for details.
INTRODUCTION

Many boys and girls are interested in shooting and hunting, but just going out in a field with a loaded gun does not constitute proper gun handling. Proper gun handling depends on many things, including gun safety and knowledge of your gun. This project emphasizes both and will be an asset to 4-H members who want to learn to use a gun safely or simply to be safe around guns. Guns are found in many homes all over the country. For example, suppose you are at a friend’s house and your friend’s brother or sister walks into the room carrying a gun. You might ask yourself, “Is it real? Is it loaded?” This project will help you answer both of these questions, and more.

We believe all people should know the basic rules of gun safety to protect themselves and their friends. Too many people, especially young people, are accidentally injured or killed because of improper gun handling. In this project, you will learn basic gun safety and how to open common gun actions to check if the gun is loaded (an action is comprised of the moving parts that load and fire the bullets or shells). By opening the action, you disable the gun. After studying care, safety, shooting positions, and aiming, you will be ready to fire on the range (under the direction of your parent/guardian or a responsible adult approved by your parent/guardian). You are not required to shoot, however, to complete this project.
BACKGROUND ON GUNS

Before studying gun safety, let’s learn a few facts about the historical development of guns and the American gun heritage. During the early settling of America, the gun was an important tool. Settlers used it to shoot game, for security, and for protection. Because the relationship between people and guns was integral to colonial society, it was protected in the United States constitution. Today, shooting is a matter of choice, not necessity.

BLACK POWDER

Black powder—a mixture of sulfur, charcoal, and saltpeter—was developed in ancient China for use in fireworks. Since then, its uses have greatly expanded. Early gun developers learned to use the power of black powder to send a projectile down a tube. The first written description of black powder was published in England in 1242 by Roger Bacon. Early advancements in guns were the result of the desire for greater speed and safety in loading and firing.

GUN DEVELOPMENT

In Germany in the late 1300s, primitive “hand cannons” were carried. Before 1425, an S-shaped bar with a pan for the powder was used; this configuration required a match to light (matchlock). These hand cannons were difficult to maneuver and required calm wind and dry conditions. In 1450, a trigger was added, and by the late 1500s, small arms were finally lightened. These guns were used for military and hunting purposes until the 1650s. Rifling, or cutting grooves in the barrel of a gun, began shortly before 1500. These grooves cause the bullet to spin and to travel in a straighter line.
In the mid 1600s, the flintlock became the most popular firearm. It used steel sparks from flint hitting a steel frizzen to ignite the gunpowder—a much more reliable method. In 1820, the caplock, a small copper cup to hold the powder and protect it from the weather, was invented. These early rifles, however, were quickly replaced by breech-loading arms in the mid to late 1800s.

The FLINTLOCK

MODERN FIREARMS

Following the invention of smokeless powder, which burns more cleanly and is more powerful, improvements such as bolt-action and breech loaders came along. Repeating arms, a wider variety of firearms, and improvements in ammunition brought gun development into modern times.

Firearms or “small arms” are generally categorized by the way they are held: rifles and shotguns (long guns) are held to and shot from the shoulder; pistols and revolvers (hand guns) are held in the hands. The rifle is a firearm shot from the shoulder, rather than from the hand.
A rifle consists of a long cylindrical barrel containing spiral grooves, a breech rear end, and a muzzle in the front. Modern rifle types are bolt-action, lever action, semi-automatic, pump, and hinge action.

The shotgun is typically used to shoot shot rather than a single bullet. Shot is a group of small pellets, many of which constitute a single charge. Shotguns are made in hinge, bolt, pump, and semi-automatic action styles. Because the inside of the barrel is smooth (unlike the rifle, which has spiral grooves), shotguns are sometimes called "smooth bores." Some shotguns made for deer hunting, however, do have grooved barrels.

The handgun is held in the hand and fired. Like most guns, it has three main parts: 1) the grip, or part that is held; 2) the action, or the mechanism for loading, cocking, and firing the gun; and 3) the launching tube. The two most popular action types for handguns are the revolver and the semi-automatic.

**GUN CLUBS**

In the late 1800s, people began to form gun clubs. The biggest club today is the National Rifle Association (NRA). Through these different gun clubs, many people are trained in small arms marksmanship and safety. Without people being interested in organizing gun clubs, many would not know how to handle guns safely.

As in the 1800s, gun safety is an important issue. People who are around firearms and those who want to learn how to use them should receive proper training on firing and safety.

**REVIEW QUESTIONS**

1. What is the advantage of today's smokeless gunpowder over black powder?

2. What is the purpose of "rifling"?

3. What are the two most common types of guns?

4. What is the difference between the two types of "long guns"?
To begin, safe gun handling requires knowing the parts of your gun and its ammunition. A person who handles a gun without knowing anything about it is a danger both to him or herself and you. You may want to make a poster of your gun and one of your ammunition, labeling the parts for each to help you remember them.

Most modern firearms have a safety. The safety is a mechanical device that prevents the firing mechanism from going off. Always keep the safety on until you are ready to fire. Because it is a mechanical device that may fail, never trust the safety. You will want to learn the location and operation of the safety on any gun you shoot. To check the safety, unload your gun and go to a safe shooting area. Check the safety by pulling the trigger while the gun is pointed in a safe direction. If the firing mechanism goes off, have a gunsmith check the gun.

A typical handgun, shotgun, target rifle, and cartridge have the parts shown in the figures below.
ACTION

A gun's action is comprised of the moving parts that load and fire the bullets or shells. To check if a gun is loaded, you need to understand how the action operates. Generally, if the action of a gun is open, the gun is disabled. This doesn't mean, however, that safe handling can be ignored. Safe handling practices must be followed. Ask your adult partner in this project to take you to a gun store to examine the different types of actions.

Common Actions of Long Guns

BOLT ACTION

A bolt action gun operates in the same manner as a door bolt and even looks similar. To check if the chamber is loaded, lift the bolt handle and pull it all the way back. Look and feel inside the chamber. If the gun is loaded, pulling back on the bolt will extract the cartridge. Because the extractor could malfunction, you should check the chamber by sight and touch to be certain it isn't loaded. While the action is open, locate the magazine (the chamber in which the cartridge is inserted) and check to be certain it, too, is unloaded.

LEVER ACTION

The metal handle located just behind the trigger guard distinguishes a lever action gun. This type of action is so named because it operates just like a lever. To open the action, pull the handle away from the stock. Look and feel inside the chamber to be certain the gun is unloaded. While the action is open, locate the magazine and check to be certain it, too, is unloaded.
HINGE ACTION
The hinge on a hinge action gun operates just like a hinge on a door. To open the action, press the release handle and press down on the barrel or barrels. The hinge, which is located beneath the barrel and in front of the trigger guard, opens the action. A quick glance will tell you if it is loaded. Hinge action guns do not have magazines.

PUMP ACTION
A pump action gun is also referred to by several names. Sometimes it is called a slide or trombone action because the wooden fore-end is pumped back and forth to operate the action.

To open the action, pull the fore-end back toward the trigger guard. If the gun is cocked—loaded or not—you must press a release before the pump will operate. The release is usually located just in front or just behind the trigger guard. When the action is open, you can tell by sight and touch that it isn’t loaded. While the action is open, locate the magazine and check to be certain it, too, is unloaded.

SEMI-AUTOMATIC
To open the action of a semi-automatic gun (often incorrectly referred to as an “automatic”), pull back the handle. Most semi-automatics will lock open when pulled fully to the rear, but some must be held open to look inside to see if they are unloaded. While the action is open, locate the magazine and check to be certain it, too, is unloaded.
Common Actions of Handguns

REVOlVER
The cylinder in a revolver has several chambers to hold the bullets. When the gun is cocked, the next chamber of the cylinder rotates or revolves to the barrel ready to fire. Never point the gun at yourself to look into the front of these chambers to see if the gun is loaded. Use the cylinder release latch to swing the cylinder out of the housing, or hinge the barrel and cylinder open to expose the chambers and see if they are loaded. Some cylinders cannot be opened this way. Instead, they are loaded and unloaded through a loading gate behind the cylinder. To check them, the gun must be pointed in a safe direction and the hammer carefully pulled back to the first click (half-cock) position. While keeping the gun pointed in a safe direction, open the loading gate and rotate the cylinder to see all the chambers. Push cartridges out one at a time with the ejector rod attached to the side of the barrel. Do not attempt to do this without help from a knowledgeable adult!

SEMI-AUTOMATIC
With a semi-automatic handgun, pull the slide action back until it latches, then remove the magazine and check the chamber to see if it is loaded.
When people, especially young people, play with guns, they often unintentionally injure or kill others. If you are with other children and a gun is suddenly brought into the play area, insist that the muzzle be pointed in a safe direction and the gun be removed from the play area. If you cannot convince others to put the gun away, you should leave immediately and tell a responsible adult. *Never play with real guns. Guns are not toys.*

**REVIEW QUESTIONS**

1. List five parts of the gun that you will be shooting and the purpose of each.
   - a. 
   - b. 
   - c. 
   - d. 
   - e. 

2. List the four parts of the ammunition appropriate for the gun you will be shooting.
   - a. 
   - b. 
   - c. 
   - d. 

3. What is the safety? ____________________________________________

4. When do you move the safety from the “safe” to the “shoot” position? ____________________________________________

5. Should you always trust the safety? Why or why not? ____________________________________________
GUN SAFETY AT HOME

Because more gun accidents happen in the home than on the range, safety should be stressed as much in the home as when on a range. If all the following rules are obeyed, you should have no accidents when handling a firearm.

The three most important rules of gun safety are:
1. Always keep the muzzle pointed in a safe direction.
2. Keep the safety on and your finger off the trigger until you are ready to shoot.
3. Keep the gun unloaded and the action open until you are ready to load.

Other important rules include:
- Treat every gun as if it were loaded.
- Respect your gun at all times. Know what your gun can do.
- When handling and cleaning a gun, open the action, remove the clip, check to be sure the chamber is empty, and keep the action open.
- Store guns in a safe place, out of reach, unloaded, uncocked, and locked.
- Keep your ammunition in a separate place, out of sight and locked.
- Never handle a gun until the action is checked to see if it is loaded; if you find it loaded, unload it.
- Unload guns before taking them into the home.
- Never transport a loaded gun in the car.

GUN SAFETY ON THE RANGE AND FIELD

As with home care, always handle your gun on the range as if it were loaded. Because guns are always potentially dangerous, don’t ever play with them. A .22 caliber bullet travels 1400 feet per second and will travel as far as one mile. At close range, it will penetrate 6 to 8 inches of ordinary boards. A bullet may ricochet (or glance) off surfaces such as metal, water, or hard objects when shot at from an
angle. When target practicing with a .22, the distance of the rifle from the target should be 50 feet.

Remember the three most important rules for gun safety.
- Always keep the muzzle pointed in a safe direction.
- Keep your finger off the trigger until you are ready to shoot.
- Keep the gun unloaded and the action open until you are ready to shoot.

Additional considerations for the range or field:
- Be sure of your backstop and target.
- Before loading, check the barrel for any obstructions.
- Never run or climb a fence with a loaded gun.
- Before using, be sure your gun and ammunition are in good condition.
- Always wear ear and eye protection when practicing your shooting.

These safety rules, along with common sense, are important for your safety and the safety of others. Remember—guns don’t hurt people, but sometimes people hurt people with guns.

REVIEW QUESTIONS AND CHECKLIST
1. Why is it important to be able to open the action of a gun? ____________________________________________
2. Why should you handle all guns as if they are loaded? ____________________________________________
3. How can you prevent a bullet from ricocheting? ____________________________________________
4. A .22 caliber bullet travels at _____ feet per second and can penetrate _____ to _____ inches of wood at close range.
5. What are the three most important gun safety rules?
   a. 
   b. 
   c. 
(TRUE OR FALSE)
6. More accidents occur on the range or field than in the home. 

7. Treat every gun as if it were unloaded. 

8. When handling and cleaning a gun, the muzzle should be pointed in a safe direction, clip removed, chamber emptied, and the action opened. 

9. You should always keep your finger inside the trigger guard when handling a gun. 

10. Before firing a gun, the bore should be clean and free of any obstructions. 

(FILL IN BELOW)
11. How and where should a gun be stored?
IF THERE IS A GUN IN YOUR HOME, COMPLETE THE FOLLOWING GUN SAFETY CHECKLIST.

<table>
<thead>
<tr>
<th>Type of gun</th>
<th>□ rifle</th>
<th>□ shotgun</th>
<th>□ revolver</th>
<th>□ other</th>
<th>________</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALIBER</td>
<td>____________</td>
<td>TYPE OF ACTION</td>
<td>____________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use</td>
<td>□ hunting</td>
<td>□ target</td>
<td>□ protection</td>
<td>□ collection</td>
<td></td>
</tr>
</tbody>
</table>

___ Is the gun unloaded?

___ Is the ammunition stored in a separate place?

___ Is the ammunition locked?

___ Is the ammunition in a box that identifies it accurately?

___ Is the gun stored in a rack or case?

___ Is the rack or case always locked?

___ When handling a gun, do you always keep your finger out of the trigger guard?

___ Is the gun stored in such a way that children cannot reach it?

___ Is the gun checked thoroughly before being used or stored?

___ When the gun is removed from the case or rack, is the action opened immediately?

___ Are the metal parts of the gun free of rust?

___ Can you always state, “I know this gun is not loaded?”

___ Do you handle every gun as if it were loaded?

___ Are all guns brought into the home unloaded?

___ Do you always carry the gun in such a manner that the muzzle is always in a safe direction?

___ Is the whole family familiar with the gun(s) in the home?

___ Is the bore clean and free of any obstructions?

___ Are all the metal parts of the gun free of heavy grease?

___ Does the action work freely?

___ Does the safety function properly?

___ Are you certain that you carry only the proper ammunition for the gun you are using?

___ Is the gun always unloaded before being transported?

___ Is the gun cased or action open when removing from or placing in a car?
AIMING, BREATHING, AND TRIGGER SQUEEZE

You are not required to shoot to complete this project. If you choose not to shoot, read chapters 4–7 and demonstrate what you have learned by making a poster or giving a presentation. If you wish to shoot and your parent/guardian can assist you (or has approved someone to assist you), finish this part of the project. To shoot, you should know three basic techniques before actually firing on the range or in the field.

1. Know what a good sight picture is and how to obtain one.
2. Know how to control breathing.
3. Last, but not least, have a good trigger squeeze.

To do this, "dry fire," or fire the rifle exactly as if on the range but without ammunition. This will help you get the feel of the trigger squeeze and the mechanism.

AIMING

Because any good gun will shoot exactly where you point it, practice holding your gun correctly. To shoot accurately, hold the gun to where you see the sights line up with the target's bull's-eye. The tip of the front sight, as seen through the notch of the rear sight, should be on the bottom edge of the bull's-eye. Focus your eyes on the front sight on your rifle, not on the target.

Take care not to tilt your gun to either side. Tilting can be detected by the position of the front sight. Try to align your sight picture as perfectly and uniformly as possible every time you fire. Great care in sighting will give you a good start on the way to high scores.

---

**PEEP SIGHT PICTURE**
The tip of the front sight, as seen through the rear peep, should line up on the bottom edge of the bull's-eye.

**OPEN SIGHT PICTURE**
The tip of the front sight, as seen through the notch of the rear sight, should line up on the bottom edge of the bull's-eye.
BREATHING

Breathing affects the accuracy with which a person shoots. Because the muzzle of the rifle will go up and down with the movement of the chest, how and when you breathe will affect your shot. After you have lined up on the target, take a deep breath. Let out enough air to be comfortable and hold the rest until you align your sight picture and fire your shot. Don’t hold your breath too long, however. This will also cause you to “wave” your rifle. If you don’t fire after taking a breath and holding it, exhale, wait a few seconds, and try again.

TRIGGER SQUEEZE

The most important action of the shooter in firing a well-placed shot is the trigger squeeze. Many more shots fail to reach the center of the target because of faulty trigger work than for any other reason. A poor trigger squeeze will make a poor shot.

The proper way to start a bullet on its way is to squeeze the trigger with a steady increase of pressure while holding the sights as closely as possible on the bull’s-eye. In doing so, you will not be able to tell exactly when the rifle will discharge. Do not contract your entire hand or jerk the trigger. If the sights become misaligned, hold the trigger and do not apply more pressure until the sights realign properly with the bull’s-eye.

A good shot holds his or her aim on the target as accurately as possible and maintains steady pressure on the trigger until the rifle is fired. No one can become a good shot until he or she has learned to squeeze a trigger properly.

REVIEW QUESTIONS

1. What should you focus your eye on when aiming at a target?

2. Explain what a sight picture is.

3. Name three techniques every shooter should know before firing on the range.

   a.

   b.

   c.

4. What is the purpose in holding your breath when firing?

5. Why is steady pressure on the trigger important when firing?
SHOOTING POSITIONS

The four standard shooting positions are: 1) prone, 2) sitting, 3) kneeling, and 4) standing. The following rules apply to all four positions. Left-handed shooters will need to reverse the hand positions and directions in the following instructions.

1. Always wear ear and eye protection.
2. Half face to the right before taking any of the positions.
3. When you are in the correct position, your rifle automatically points to the center of the target. If it does not, shift until you find the center.
4. Grasp the small of the stock with the right hand.
5. With your left hand, support the rifle under the fore-end of the stock.
6. Place the left elbow under the rifle to utilize direct bone structure rather than muscle effort to support the rifle.
7. Keep your finger out of the trigger guard until you are on target and ready to shoot; then squeeze the trigger with the second joint of the first finger, or with the first joint if the former position is difficult.
8. Press your cheek to the stock, bringing your eye as near as possible to the rear sight.
9. Hold the rifle butt against your shoulder.
10. The flat surface of the ground is the only support permitted for the body; artificial rests are not permitted.
11. Relax. Grip the rifle firmly, but not too tightly. Maintain your position as effortlessly as possible.

FOUR STANDARD SHOOTING POSITIONS

The Prone Position

In the prone position, the steadiest of the four shooting positions, the fundamentals of chapter 4 can be put to best use. Beginners should start with the prone position and spend as much time as necessary to learn how to correctly fire the rifle.

When prone, your body should be approximately at a 30- to 45-degree angle with the line of aim. Your spine should be straight and your legs spread apart, with your right leg slightly bent. Your left elbow should support the rifle, which should be balanced on your left hand. The upper part of your body and arms should form a triangle, allowing the gun to point naturally to the center of the target. To test if
your position is correct, close your eyes for a few seconds and take a few deep breaths. If the sights are not in line with the target when you open your eyes, you are in the wrong position. Shift until the correct position is found. Take care to hold your position when firing.

The Sitting Position

In a correct sitting position, you should be almost as steady as when in the prone position. Most shooters prefer a position in which the body is half-faced to the right. The most stable position is sitting cross-legged, with your feet pulled in and your elbows resting on the insides of your knees. Sitting with your feet well apart and braced on the heels, and your body forward with elbows braced against the insides of the knees, is the least stable sitting position. Some people vary this by crossing the legs at the ankles or placing the feet together.
The Kneeling Position
Half-faced to the right, kneel on your right knee and sit on your right heel. Bend your left knee until your lower left leg is vertical to the ground. The left knee, with the point of the elbow slightly behind or beyond the kneecap, supports the left arm, which in turn balances the rifle. Hold your right elbow approximately at shoulder height. As you learn to remain steady, your accuracy will develop.

The Standing Position
This position demands even more steadiness from the shooter. Even the best shooter cannot hold the rifle perfectly steady. At first, the rifle will seem to dance across the target. After much practice, however, you can slow this waver or dance of the rifle down to a minimum. Remember, you can't hold it perfectly steady! If you try to “fight” the gun, it will produce jerks in the movement and, ultimately, poor shots.

To assume the standing position, first face almost directly to the right of the line of fire, with your left side towards the target. Spread your feet 12 to 18 inches apart, keep your body erect, and lean slightly backward to balance the weight of the rifle. Don’t lock your knees; relax them. Rest the rifle in the palm of your left hand. Your left elbow should be braced against your left side. Your left hand should support and aim the rifle, not pull it back toward the body. Your right elbow should be approximately the same height as your right shoulder. Keep your head as erect as possible.

Using the Sling
To help hold the rifle more steadily and to improve your accuracy, use the sling. The sling can be used in all four shooting positions.

REVIEW QUESTIONS
1. What can you use to hold your rifle steady when firing?

2. List four standard shooting positions and describe each.
   a. 
   b. 
   c. 
   d.
EQUIPMENT

EQUIPMENT YOU NEED

Rifle
A rifle is the most important piece of equipment in this project. We recommend a .22 caliber rifle. (If you cannot obtain a .22 caliber rifle, an air gun or air rifle is excellent for beginners. A BB gun would be the most inexpensive rifle to use.)

The rifle may be a single-shot bolt or a lever action—probably the best type would be a bolt action rifle with a “clip.” A single-shot bolt would be the safest for the beginner. When selecting a rifle, consider the rifle’s weight. Generally, a 6- to 7-pound gun is suitable for the beginner. As you progress, you may choose a heavier rifle, which may feel better to you. Be sure to check the fit of the stock. Remember, the length of the stock will affect your accuracy.

Sights
Next, consider the rifle’s sights. The “peep”-type rear sight with the adjustable elevation (up and down) and windage (side to side) is recommended. The front sight should be either a square-topped post or blade sight or a “peep” (aperture sight). Sights are replaceable on the rifle. If you have trouble with the rifle, have a qualified gunsmith check the sights and replace them if necessary.

Slings
Some rifles come equipped with a sling. If your rifle does not, most sporting goods stores carry slings and sling swivels. Slings are handy, but not required.

Ammunition
In terms of ammunition, the long rifle .22 caliber rim fire cartridge is recommended. Available .22 caliber cartridges include shorts, longs, and long rifles. The “longs” are poorly balanced ballistically and are not an accurate projectile.

Targets
The NRA has three types of official 50-foot targets. You can purchase targets at most gun stores. Shorter range targets may be needed if BB or pellet guns are used in this project. Be sure to check the manufacturer’s recommendations on targets and shooting distances.
Additional Equipment

Other equipment you may want to use in this project includes glasses (shooting type), a sheet of plastic or canvas to lie on the ground and shoot from, and a gun case to protect the rifle from weather, nicks, and scratches.

You may also want to use a loading block. A loading block is a piece of wood with holes 3/8 of an inch in diameter drilled into it to hold ammunition.

Don’t purchase additional equipment if you are a beginner. Wait to see if you enjoy target shooting before investing in more equipment. It can get expensive!

CARE OF EQUIPMENT

Keep your gun clean, free of rust, and in good working order. Keep all moving parts lightly oiled. Make only minor repairs yourself; leave major repairs to a gunsmith.

Keep the barrel clean and free of obstructions, such as snow, mud, grease, and other debris.

“Non-corrosive” ammunition cuts down on the number of times you have to clean the barrel. A little oil will preserve both wood and metal. Use a rag to spread a little oil over the surface of the bolt, trigger, other metal parts, and the stock.

Before storing a gun for a long period of time, clean it well with a commercial cleaner. Be sure the inside of the barrel is dry. Coat the bore and outside metal surface of the gun with gun grease. Store in a horizontal position.

Run cleaning patches through the bore of a new or seldom-used gun to remove grease. Grease or heavy oil in the bore is dangerous, and may cause a gun to lose its accuracy.

To help keep the stock looking nice, in good condition, and to prolong its life, apply linseed oil with a rag after every use of the gun.
REVIEW QUESTIONS

1. As a beginner, the average weight of your rifle should be approximately __________ pounds.

2. Explain windage and elevation.

3. Name the essential equipment for range firing.

4. List the three types of .22 caliber ammunition.
   a. 
   b. 
   c. 

5. Describe a loading block.

6. Will grease or heavy oil affect a gun in any way? If so, how?

7. What is the procedure when storing a gun over a period of time?

8. Explain what to do when cleaning your gun.
RANGE FIRING

Apply all you have learned in the preceding chapters when you are on the range. In addition to safe handling of your gun and becoming an accurate shot, you must be considerate of others. When on the range, obey all of the range officer’s orders. Do not pick up or load a rifle until the range officer gives the order to do so.

After firing, date and score your target for this project book. You may also have a target for each shooting position containing 10 shots for judging. Attach these targets to page 34 of this project book.

REVIEW QUESTIONS

1. Whose orders are to be obeyed while on the range? Why?

2. After firing, what information should be entered in your project book?

3. Which position gave you the most accurate shots? Why?

4. Which position was most comfortable? Why?

5. Which position was easiest to get into? Why?
APPENDIX A: ADDITIONAL GUN SAFETY OPPORTUNITIES

HUNTER EDUCATION COURSE

The Hunter Education Course, given by the State Department of Natural Resources, is an excellent way to obtain additional information on gun safety in the field. The Ohio Department of Natural Resources, Division of Wildlife, has information on courses in your area.

OHIO 4-H SHOOTING SPORTS CLUBS

Many counties have 4-H Clubs that specialize in these new National 4-H projects. There is no 4-H member project book for these projects. The only way they can be used is by a 4-H volunteer leader who has completed the training program. Check to see if your county offers such a program.

APPENDIX B: REFERENCES

National Rifle Association
11250 Waples Mill Road
Fairfax, Virginia 22030
ATTACH TARGETS HERE (chapter 7)
I PLEDGE

MY HEAD TO CLEARER THINKING,
MY HEART TO GREATER LOYALTY,
MY HANDS TO LARGER SERVICE,
AND MY HEALTH TO BETTER LIVING,
FOR MY CLUB, MY COMMUNITY,
MY COUNTRY, AND MY WORLD.