

Shooting

AND THE SSAA

- a beginner's guide

Inside

- ⦿ **Welcome to the SSAA**
- ⦿ **SSAA shooting disciplines**
- ⦿ **Sports shooting**
- ⦿ **Hunting**
- ⦿ **Glossary of shooting terms**
- ⦿ **Know your firearm**



Welcome to the SSAA

If you're new to shooting or have recently joined the Sporting Shooters' Association of Australia (SSAA), welcome to a very exciting sport and pastime. The SSAA is Australia's premier shooting organisation, representing licensed firearm owners, sporting shooters and recreational hunters throughout the country. The information contained in these pages will introduce you to the largest shooting organisation in Australia and help you become more familiar with the fascinating sport of shooting.

Supporting shooters for 70 years

The Sporting Shooters' Association of Australia was formed in Sydney in 1948 and has since become the premier body representing the shooting sports nationwide. With almost 200,000 committed members, the SSAA is among the largest sporting organisations in the country.

We have regional offices in all the major states and territories, as well as SSAA National which advises the state bodies. Our monthly magazine, *Australian Shooter*, is the leading publication for the nation's sports and recreational shooters, while the quarterly *Australian Hunter* is packed full of hunting tales, reviews, tips and recipes from the field. We also have national, state and territory websites, e-newsletters and Facebook pages.

SSAA member benefits

Apart from promoting the shooting sports and protecting firearm owners' interests, the SSAA has a number of roles and is involved in a myriad of activities and projects. The SSAA has official Non-Government Organisation status within the United Nations and regularly participates in international discussions. It also has a federal parliamentary presence to liaise and communicate with Australia's elected leaders and those departments that affect our sport.

In addition to this, the SSAA is directly involved with the firearms industry, both at a national and international level. We work closely with the National Firearm Dealers and Traders Council and the Federal Government in the formulation of workable national regulations, such as importation.

Some of the practical benefits of membership include complimentary copies of the *Australian Shooter*, *Junior Shooter*, *ASJ*, SSAA National and SSAA-LA E-newsletters and special report publications; discounts on a broad range of other shooting and hunting magazines, including *Australian Hunter* and *Australian & New Zealand Handgun* and access to members-only sections of the SSAA website.

SSAA members interested in extending their conservation efforts may be able to join a SSAA Conservation & Wildlife Management branch after passing the accreditation programs in their respective state or territory. Our SSAA Farmer Assist program provides members with access to more hunting opportunities.

The SSAA Online Shop sells a wide range of merchandise including hats, clothing, badges, shooting glasses, firearm cleaning kits, books, torches, knives and other general outdoor equipment, all featuring the SSAA logo.

SSAA General Insurance Brokers Pty Ltd is the insurance branch of the Association. As 'The Shooter's Broker', it can provide all manner of insurance for members, as well as specialist insurance for shooting, archery and other sporting clubs, property owners, firearms dealers, manufacturers, wholesalers, importers, exporters and professional shooters. As a SSAA member, you are entitled to public liability and personal accident insurance for your target shooting and hunting activities. You can also upgrade to the SSAA's \$30 Firearms Insurance option to receive \$25,000 worth of firearms and fixed accessories insurance. For more information, visit www.ssaaiib.com.au

SSAA Gun Sales is the Association's online service with free registration for SSAA members, dealers and the Australian shooting and hunting community, including firearm owners, collectors and enthusiasts. The site has been designed to be Australia's most comprehensive firearms and accessories trading website. It's safe, secure and simple to use. For more on the Association, visit the SSAA National website at ssaa.org.au

Sign up a friend or family member...



Membership information

If you are not already a SSAA member but would like to be, contact the SSAA Membership office:
 Postal: PO Box 282, Plumpton, NSW 2761
 Phone: (02) 8805 3900
 Fax: (02) 9832 9377
 Email: mem@ssaa.org.au
 Website: membership.ssaa.org.au

SSAA contacts

Each state and territory have a state office with many clubs and ranges to attend. By contacting one of the following state head offices, you will be able to find the nearest SSAA range and just about any Association information you need.

ACT

02 6241 7313 ssaaact.org.au

New South Wales

02 8889 0400 ssaansw.org.au

Northern Territory

08 8947 1339 ssaa.org.au/northernterritory

Queensland

07 3281 3447 ssaaqld.org.au

South Australia

0419 849 452 ssaasa.org.au

Tasmania

0439 949 158 ssaatas.com.au

Victoria

03 8892 2777 ssaavic.com.au

Western Australia

08 9497 7919 ssaawa.org.au

SSAA shooting disciplines

The shooting sports offer a diverse range of disciplines with something for everyone, whether your preference is for shotguns, rifles or handguns, short range or long distance shooting, competitions or just shooting for fun.

The SSAA is the largest and most active shooting organisation in the country, and manages more than 18 disciplines at local, state, national and international level. Shooting is one of the few sports that encourages and caters for the participation of young and old, male and female, able-bodied and disabled. Sports shooting is also a family-oriented pastime and the SSAA recognises the importance of encouraging participants of all ages.

For more information, visit ssaa.org.au/disciplines

Action Match



Action Match is a dynamic handgun discipline catering to revolver and self-loading pistol shooters. While international rules dictate that the firearm's calibre must be at least 9mm, due to Australia's handgun regulations, Action Match competitors can use either a .38 Super or 9mm Parabellum self-loading pistol or a .38 Special/.357 Magnum revolver. The discipline includes four firearm classes: Open, Open Modified, Metallic Sight and Production; and four main courses of fire: Practical, Barricade, Moving Target and Falling Plate, with each course having its own time, distance and scoring conditions.

ssaa.org.au/actionmatch

Air Rifle Field Target



Air Rifle Field Target is a simulated field-shooting discipline that caters air rifle shooters, with competitors aiming to hit reactive 'fall-when-hit' targets of various sizes at often unknown ranges from 8 to 50m. As the name suggests, Air Rifle Field Target lends itself to being contested in a bush-type environment, although it may also be held on a more traditional range line.

ssaa.org.au/fieldtarget

Benchrest



Benchrest is a precision rifle shooting discipline where shooters aim to put five or 10 shots into the smallest possible group on paper targets placed at 50m, 100, 200 and 300 yards. Groups are measured from the centre to the centre of the two widest shots in a group. Rifles are fired from rests, comprising a front rest to support the fore-end and a rear sandbag to support the rifle's butt. There are 10 main classes within this discipline, with the differences largely determined by rifle weight and calibre.

ssaa.org.au/benchrest

Big Game Rifle



Big Game Rifle is a rifle discipline that aims to foster the collection, preservation and use of vintage and modern classic large-calibre big-game rifles, particularly those of British origin. The discipline includes eight categories of matches and the courses of fire within these are largely determined by rifle types and eras, shooting times and shooting positions. The matches aim to simulate field-shooting conditions to improve the shooter's firearm skills in the pursuit of large and dangerous game.

ssaa.org.au/biggame rifle

Combined Services



Combined Services is a rifle and handgun discipline that aims to encourage organised competitive shooting with a view towards a better knowledge of the safe handling and proper care of military or service firearms. The discipline encompasses more than a dozen Service Rifle and Service Pistol classes in which competitors use original or faithful reproduction rimfire, centrefire and black powder military and other service rifles, carbines, revolvers and self-loading pistols shoot for score at paper targets of different sizes and from various distances and positions.

ssaa.org.au/combinedservices

Field Rifle & 3-Positional



Field Rifle & 3-Positional is a rifle discipline that aims to improve hunting marksmanship under rifle range conditions, while teaching shooters the capabilities and limitations of their equipment. Field Rifle is designed around the four most used field shooting positions of rapid fire,

standing, standing post rest and sitting/ kneeling post rest over various distances, while 3-Positional uses the same rifles as Field Rifle, but is a slow-fire event that uses the prone, standing and sitting/ kneeling positions.

ssaa.org.au/fieldrifle3p

Fly Shoot



Fly Shoot is a shooting discipline that caters exclusively to rifles. The discipline includes Rimfire and Centrefire matches generally shot at 200 yards and 500m respectively. Each match comprises five targets, with the target having a 'fly' 30mm in size as the X-ring and scoring rings around it. Fly Shoot is a unique discipline as both the size of the groups and scores count towards a shooter's final result.

ssaa.org.au/fly-shoot

Gallery Rifle



Gallery Rifle includes short- and medium-distance events for rifles and pistols chambered in pistol-calibre cartridges.

The international rulebook comprises four main events: Gallery Rifle Centrefire, Gallery Rifle Smallbore, Long Barrelled Revolver and Long Barrelled Pistol, though the SSAA principally supports Gallery Rifle Centrefire at a national level. This event is based around scoped and iron-sighted tubular magazine lever-action rifles. Gallery Rifle matches require the competitor to load and shoot very quickly either at stationary paper or reactive steel targets.

ssaa.org.au/galleryrifle

Handgun Metallic Silhouette



Handgun Metallic Silhouette is a revolver and pistol discipline where competitors aim to knock down metal animal-shaped targets. The targets are placed on steel stands in banks of five and set at a variety of known distances, with the competitors having a certain amount of time to knock as many down as they can. The firearms used must fall into one of four categories: Production, Revolver, Standing and Unlimited, and there are three official matches: Big Bore, Smallbore and Field Pistol, with each match having its own categories.

ssaa.org.au/handgunsilhouette

Junior Sports Shooting



Sports shooting requires a great deal of dedication, concentration, consistency and above all else, practice. These attributes are just some of the life-skills junior may gain when they participate in sports shooting. The SSAA's focus on supervision and safety creates a nurturing environment for young people to develop while also helping to build their confidence. Most disciplines within the SSAA have a Junior component, with juniors often separated into two categories: those up to 15 years, and those from 15 to 18 years of age.

ssaa.org.au/juniorsports

Law Enforcement Activities



Law Enforcement Activities is a handgun shooting discipline that aims to encourage organised competitive shooting of law enforcement-orientated Australian and international handgun matches. The matches involve the use of centrefire revolvers and self-loading pistols, which are shot at various targets from various distances and positions.

ssaa.org.au/law-enforcement-activities

Lever Action



Lever Action is a shooting discipline that caters exclusively for lever-action rifles. The discipline includes two categories: Classic Calibre for as-issued rifles in any centrefire cartridge produced up to 1938; and Open Calibre for rifles in any factory, handloaded or wildcat rimfire or centrefire cartridge. Lever Action aims to improve hunting marksmanship skills and includes contour animal profile targets and traditional paper ring targets. The matches require a variety of shooting positions and distances, and courses of fire can vary from 15 seconds to five minutes for five shots.

ssaa.org.au/leveraction

Long Range Precision



Long Range Precision is a handgun, rifle and black powder rifle discipline that aims to refine and develop the accuracy of firearms, ammunition and equipment for shooting at extreme distances. The handgun events are shot up to 500m, while the rifle events are shot up to 2000m. The core matches require the competitor to shoot five shots from a cold barrel, without the use of benches or wind flags, as they would in a normal field situation.

ssaa.org.au/longrangeprecision

Muzzleloading



Muzzleloading is an interactive discipline that caters to the original and replica rifles, muskets, handguns and shotguns that were used during Australia's colonial days. The firearm categories are very detailed, with each having its own classes and subsections. The rifle events are shot from the offhand, cross-sticks/prone, bench rest and sometimes kneeling/sitting positions, while the shotgun events are shot around stations placed various distances from the thrower, shooting 25 clay targets overall. In addition to range shooting, Muzzleloading shooters are often enthusiastic followers of historical events and re-enactments.

ssaa.org.au/muzzleloading

Practical Shooting



Practical Shooting is a quick and energetic discipline that caters to rimfire and centrefire pistols, revolvers and rifles, and shotguns, with each having their own classes. Most matches comprise a minimum of three stages and the courses of fire are designed to offer challenging

and active scenarios that test the capacity of the shooter and their equipment. The targets are mainly paper, cardboard or steel, and the competitor is scored on their accuracy and time in comparison with all the scores and times shot on the day.

ssaa.org.au/practicalshooting

Rifle Metallic Silhouette



Rifle Metallic Silhouette is an air, rimfire, centrefire, service and black powder rifle shooting discipline where competitors aim to knock down metal animal-shaped targets. The targets are placed on steel stands in banks of five and set at a variety of known distances, with the competitors having a certain amount of time to knock as many down as they can. The various competitions are shot from a range of distance and positions, depending on the firearm calibre and category, but all competitions aim to improve hunting marksmanship skills under range conditions.

ssaa.org.au/riflesilhouette

Shotgun



Shotgun permits the use of any smooth-bore shotgun up to 12-gauge to shoot clay targets. The discipline includes four main competitions. Sporting Clays is usually

held in a bush setting, with competitors shooting from six or seven stands and traps throwing targets to simulate hunting. 5-Stand has five stands separated by a couple of metres each, with traps throwing single or double targets in different directions. Low-Field and High-Field competitions are shot from pads level with or close to the trap house and the traps being above or below ground level.

ssaa.org.au/shotgun

Single Action



Single Action is a multifaceted discipline that uses original or replica firearms that were commonly used in the Old West period of 1800 to 1899. This includes single-action revolvers, lever-action and slide-action rifles and carbines, lever-action and pump-action shotguns, and side-by-side shotguns without automatic ejectors. The targets are generally reactive and vary in shape and dimension. In addition to competition, Single Action shooters also preserve, promote and respect the skills, traditions and pioneering spirit of the historic American Old West, often adopting a shooting alias appropriate to the era.

ssaa.org.au/singleaction

Target Pistol



Target Pistol is an international rimfire and centrefire revolver and self-loading pistol shooting discipline. There are six main classes and several side matches, with each based around the class of the handgun and ammunition used and many having their roots in different eras and types of service pistol shooting. The discipline includes four main matches: National Match Course, 900 Match Course, International Mayleigh Match, and Short Course Match, and competitors have varying time restrictions to shoot single-handedly in the standing position at paper targets placed at 25 and 50m.

ssaa.org.au/targetpistol

Working Gundogs



Working Gundogs is a shotgun discipline that promotes the use of trained gundogs for hunting and retrieving in the field. The discipline conducts training, trials and competitions at various levels to provide owners with a guide to improving the abilities of their dogs. The four main Working Gundogs disciplines include Retrieving; Hunt, Point and Retrieve; Spaniel; and Pointer and Setter, with the various breeds of Labradors, Brittans, retrievers, pointers, setters, spaniels, munsterlanders, weimaraners and more all having their own skills and specialities.

ssaa.org.au/workinggundogs

Sports shooting

Safety is of paramount importance to the SSAA and that is why we regularly promote and encourage safe practices in all of our disciplines, activities and publications. We also conduct safety seminars and practical instruction on firearm and hunting safety, and work closely with the firearms industry in the promotion of responsible firearms handling, particularly among new or young shooters.

Shooting is one of the safest sports in which to participate. Studies have shown that it is even safer than horse-riding, football, basketball, water sports and table tennis. Observe the following firearm safety rules and insist that others do the same.

Basic firearm safety

1. Treat every firearm with the respect due to a loaded firearm.
2. Carry only empty firearms, rendered safe with the action open or broken, into your car, camp and home.
3. Always be sure that the barrel and action are clear of obstructions.
4. Always carry your firearm so that you can control the direction of the muzzle.
5. Be sure of your target before you pull the trigger.
6. Never point a firearm at anything that you do not want to shoot.
7. Never leave your firearm unattended, unless you unload it first.
8. Never climb a tree or a fence with a loaded firearm.
9. Never shoot at a flat, hard surface or the surface of water.
10. Do not mix firearms, gunpowder and alcohol.

Basic range rules

While out at the shooting range, certain rules must be obeyed if you want to enjoy a day of shooting. The following rules are general; range rules may vary according to the discipline being shot. If you are ever unsure about something at the range, ask the range officer.

1. The range officer (RO) is in charge.
2. Under no circumstances may a firearm be loaded except when on the firing line.
3. Firearms that are not in bags or cases must be carried with the muzzles pointed safely, actions open, and bolts and magazines removed.
4. Self-loading firearms with actions that do not remain open must be held open with a breech safety plug.
5. All persons must report any potentially dangerous situation to the RO immediately.
6. Firearms may not be handled behind the firing line unless in a designated safe area.
7. No-one is permitted to approach the firing line until the RO issues permission.
8. You may not touch any firearm until the RO issues permission.
9. On the command 'Cease fire', all shooters must immediately open the action, put their firearm down and stand immediately behind the firing line to await the RO for further instructions.
10. No-one is permitted to go downrange until the RO has issued the command to go forward. It is the RO's duty to ensure no-one approaches the firing line when people are downrange.
11. Firing may not commence until the appropriate warning flags have been erected.
12. Shooting may only be at the proper targets.
13. Hearing and eye protection is strongly recommended.

Trigger control for rifles and handguns

The trigger should be squeezed using a gradually increasing pressure so the exact instant of firing is not predictable to the shooter. There needs to be a kind of feedback between the sight-picture and the

trigger finger so the perfect sight-picture coincides with the instant of firing. This only happens with continuing practice.

Hair triggers (those with a very light pull weight) are very dangerous in the field and should not be used. If your rifle has an adjustable trigger, it is not recommended that you lighten it for field use. If you wish to adjust your trigger, consult an experienced gunsmith.

Recoil

Recoil occurs because the forward momentum of the bullet is equally matched by the rearwards momentum of the firearm. Where calibres having heavy projectiles or high velocities are used, recoil will be the highest.

The effects of recoil can be reduced by ensuring that the firearm is held firmly with both hands and that the body is free to move backwards in such a way that the momentum of the firearm is absorbed as slowly as possible.

Firing high-recoil firearms from rested positions while seated or from the prone position causes maximum recoil problems. Beginners should avoid the purchase of large-calibre firearms until shooting skills are learned and developed. Very powerful large-calibre firearms should only be used where there is a real need to do so.

Apart from inflicting varying degrees of unpleasantness, recoil impedes accuracy.

Shooting accessories

Shooting, while a firearms sport, is not necessarily an inexpensive sport. You will need more than a basic firearm, but for those who are willing to do a little work, there are plenty of bargains to be had. The shooting fraternity has a large second-hand market (see: ssaagunsales.com) and just about every shooting clubroom in the country has a noticeboard full of bargains. Often, other club members can loan or sell good used equipment to the newcomer. Most clubs have firearms that beginners can use to try out a match too.

What you will need

Ammunition:

Ammunition should be kept in its original package in a cool, dry place. It should be secured from theft or interference and out of the reach of children. It is important to keep ammunition away from sources of heat, oil and moisture and you should never store it in the same cupboard as oxidising agents.

When considering ammunition, ask your dealer for advice, collect any free information available and read the information provided on the ammunition package.

Secure storage container:

In all states and territories, firearms must be securely stored in a lockable compartment or safe that meets your state's legal requirements.

You will also need a carry-bag or case in which to transport your firearm. Travelling with an exposed firearm in most states is illegal. (There are exceptions on private property.) Bags or cases protect your expensive firearm from scratches and nicks that are inevitable when transporting.

Cleaning equipment:

Ask any shooter about the importance of cleaning and you will quickly find that cleaning is one thing that most shooters agree on - the method of cleaning is a different story. All shooters know that a clean firearm shoots far better than a dirty one.

Some basic cleaning tools that every shooter should have are plenty of clean rags, a cleaning rod suitable for your firearm calibre or size, cleaning solvent and/or cleaning paste, a bronze brush and a bristle brush suitable for your firearm calibre, gun oil and basic tools such as screwdrivers, Allen keys, etc.

Ear protection:

On many ranges, ear protection is compulsory. There are many options, including disposable soft plugs, silicon ear moulds, earmuffs and electronic earmuffs. Refer to your local range rules for more information about this.

Eye protection:

Eye protection is essential. There is a wide variety of safety glasses available to protect your eyesight.

Targets:

Targets are available from SSAA clubs for purchase.

Rule book:

It is a good idea to purchase a rule book for the match you are shooting so you can fully understand the rules and regulations.

What you might want

A telescopic sight (scope):

Sights bring the target into focus and let you know where the barrel is pointed and where your bullets will potentially go, therefore improving accuracy.

Bench rest, sandbag or tripod:

These pieces of equipment help make shooting accuracy a little easier. They may also be helpful or even essential, depending on the discipline or event you are shooting or if you are shooting in the field.

Spotting scope or binoculars:

If you plan to target shoot a fair bit at far distances, you might want to invest in a good spotting scope or a pair of binoculars. Aside from being very tiring, running back and forth to the target after each shot is usually not an option.

Reloading equipment:

Many shooters prefer to reload their own ammunition. Not only is this a good way to save money, but it is also an enjoyable pastime. Get yourself a good reloading book, so you can understand the process of reloading and the safe limits for reloading ammunition for your particular firearm.

Camouflage gear:

This can be very helpful when hunting, but it is not very practical while at the range. In fact, camouflage gear is not allowed at many ranges for safety reasons.

Chronograph:

A chronograph measures projectile velocity, which can be useful information for testing reloaded ammunition.

Shooting apparel:

Each discipline has its own style of clothing. From gloves, jackets, shirts, pads, leather blast patches to slow covers, the list of clothing accessories is endless, so be sure to find out what items are essential for competition and what items are preferable.

Range box or toolbox:

Save yourself many trips to the boot of your car by organising everything you will need in a proper range bag. Many shooters have a shooting toolbox too for any alterations that are needed on the range.



Hunting

A large percentage of the SSAA's members are hunters. These people vary in age, gender, vocation and location, and they often travel throughout the country and sometimes even overseas to participate in hunting activities.

There is a growing number of Australians who hunt for food, where they spend time being part of the natural environment, harvesting free-living, wild animals for the family dinner table. Hunting should be seen as an activity similar to fishing, and has also done much to save Australia's endangered species from extinction. It is instrumental in the control of feral animals and the over-population of non-endangered native species.

The SSAA promotes ethical hunting and supports safe and sustainable hunting habits and ethics. We encourage all hunters to display appropriate fire-arm-handling skills, acceptable conduct and responsibility to themselves and others, as well as an understanding of targeted species, an appreciation for the environment and the ability to participate with and be mindful of the welfare of others. Hunters are also encouraged to fully understand the rules of ethical

hunting and exhibit an appreciation and adherence to sustainable wildlife management practices and game hunting laws.

The SSAA's policy is to promote the one-shot kill. Second shots are only to be taken as a backup if required.

ssaa.org.au/hunting

SSAA Conservation & Wildlife Management branches

Within the SSAA, there are dedicated groups of members who are committed to the preservation of native Australian species and the management of problem species. These members form the SSAA's Conservation & Wildlife Management (CWM) branches and these branches provide the structure and opportunity for members to use their shooting skills to assist in the conservation of native animals and the management of problem animals such as feral goats, feral cats and foxes.

To participate in CWM activities, certain skills such as shot accuracy and a theoretical understanding of some relevant topics must be demonstrated. Each state or territory that has a CWM branch runs its own accreditation program, which enables members to participate in field

activities. Topics that are covered include map reading, navigation, firearms safety and handling, wildlife appreciation and management, living in the field, ethical hunting and first-aid.

Organised culls of feral cats, donkeys, foxes, goats, rabbits and pigs have taken place in the Flinders and Gammon Ranges in South Australia; Gregory National Park in the Northern Territory; Pilliga, Wagga Wagga, Hillston and Ivanhoe in New South Wales, the Murray Sunset region in Victoria; and various places across Queensland.

CWM groups provide vital services that help maintain the fragile balance of local ecosystems. Members perform a variety of tasks beyond managing the problem species. Upon request, they also collect biological samples for research and management purposes; assist landholders with property management by checking fences, dams and stock; manage and assist in rehabilitating vegetation; assist with native animal surveys and counts; and provide other services that assist in maintaining ecological communities.

CWM members come from all walks of life and want to actively contribute to conservation. They are volunteers who hold the appropriate firearms licences, and many are willing to undergo training and accreditation to be able to provide their services. The members use their own equipment and support the program by fundraising or writing grant applications. They are also insured for up to \$20 million public liability insurance cover for the peace of mind of landholders.

SSAA Farmer Assist

The SSAA Farmer Assist program has been developed to enable farmers with wildlife management issues to seek the assistance of SSAA members. The specially designed, free-of-charge online-only program allows farmers to choose who they invite onto their properties from the group of accredited members replying to their posts.



SSAA National has worked with a number of SSAA state branches to release the program throughout most of Australia. In 2014, the ABC's Landline television program highlighted the success of the SSAA Farmer Assist program and the relationships the program has helped create. Farmer Assist has its own dedicated website with a great deal of information for members and farmers.

farmerassist.com.au

Hunting safety and ethics

The SSAA expects hunters to practise the following safe and ethical hunting practices:

1. Having first obtained a landowner's permission to shoot on their property, members should consider themselves to be invited guests, so that they will be welcome in the future.
2. Members must obey the rules of safe firearms handling and diplomatically yet firmly insist others do the same.
3. Members must obey all relevant hunting laws and regulations and diplomatically yet firmly insist others do the same.
4. Members should support game conservation programs and the sustainable utilisation of wildlife.
5. Members should pass on to others, including youngsters, the proper attitudes towards game management and conservation and the skills of safe firearms ownerships, which are the hallmarks of the sporting shooter.

Hunting etiquette

1. Leave gates as you find them.
2. Ask permission to light cooking fires first.
3. Keep cooking fires as small as possible.
4. Put your fires out properly before leaving.
5. Never gather firewood and use a chainsaw without prior permission.
6. Keep clear of stock routes.

Minimum suggested rifle cartridges for hunting

Game animal	Minimum suggested	Maximum cartridge range
Rabbits and hares	.22RF	100m
Foxes and feral cats	.22RF	100m
Kangaroos	.222 Remington	150m
Wild dogs	.222 Remington	200m
Feral goats	.22-250 Remington	100m
Feral pigs	.243 Winchester	150m
Buffalo	.270 Winchester	200m
Small deer*	.243 Winchester	150m
Large deer*	.270 Winchester	200m

*Subject to suggested and/or legal minimum calibres set by state or territory regulations.

7. Drive only on defined tracks.
8. Be especially careful with target identification and danger zones if spotlighting.
9. Keep away from water troughs.
10. Never contaminate stock water with soaps.
11. Take your rubbish away with you.
12. Ensure the property owner is well aware of your movements.
13. If you are successful, offer to share your game with the owner.
14. Report any suspicious or unusual events to the owner.
15. Don't keep returning to the property with new people - look after the areas as if they were your own.

Choosing the right cartridge

Whether you are going to shoot clay or paper targets or hunt rabbits, using the right firearm and choosing the right cartridge is vital. The following information suggests what type of firearm/cartridge to use in a variety of situations. Of course, these are just general suggestions and relate to the minimum calibre you should consider for a particular situation. With experience, you may develop your own preference based on your particular skill and needs.

When just starting out as a shooter, trying to figure out and understand the different cartridge types can be very confusing, especially if you are thinking about hunting different animals with the same firearm. As an ethical hunter, you want to be sure that the cartridge you are using is powerful enough to release the energy required to produce a clean, quick, one-shot kill. In some states and territories, certain rules govern the size of cartridge to be used when hunting certain species. Being a responsible and ethical hunter, you should always be up to date with any regulations that specify a specific cartridge type or calibre for a particular animal.

The 'Minimum suggested rifle cartridges for hunting' table summarises the aforementioned information. However, there are a number of other factors to consider when choosing a firearm and cartridge. To ensure that you are using the appropriate firearm, consider what other shooters are using and give yourself a wide range of options if possible.

One important thing to remember is that there is no substitute for correct shot placement. The table is intended as a guide and its applicability will be greatly influenced by prevailing conditions, precise species and so on. The shooter should always remember that when considering animal welfare outcomes, it

Shot sizes

Lead shot sizes	12	9	8.5	8	7.5	6	5	4	2	BB	
Pellet diameter (")	.05	.08	.085	.09	.095	.11	.12	.13	.15	.18	
Pellet diameter (mm)	1.27	2.3	2.16	2.29	2.41	2.79	3.05	3.3	3.81	4.57	
Buckshot sizes	No. 4	No. 3	No. 2	No. 1	No. 0	No. 00	No. 000				
Pellet diameter (")	.24	.25	.27	.30	.32	.33	.36				
Pellet diameter (mm)	6.1	6.35	6.86	7.62	8.13	8.38	9.14				
Steel shot sizes	6	5	4	3	2	1	Air Rifle	BB	BBB	T	F
Pellet diameter (")	.11	.12	.13	.14	.15	.16	.177	.18	.19	.2	.22
Pellet diameter (mm)	2.79	3.05	.33	.356	3.81	4.06	4.49	4.57	.483	.508	5.59

Note: The size of shot, whether lead or steel, is based on American Standard shot size. Thus, a steel No. 4 pellet and a lead No. 4 pellet are both .13" (3.33mm) in diameter.

This information was taken from the *NRA Fact Book*.

is better to be 'overgunned' than to hunt with an inadequate calibre.

Quail, pigeons and pheasant

These birds are normally taken with a smaller shot size in shotguns of all gauges. The most commonly used cartridge for a 12-gauge shotgun is a 1.125oz load of No. 6 to 9 size shot, depending on the game bird. It is important to remember that the smaller the shot size, less energy will be retained by each pellet in flight. This decreases the effective range at which it can be shot. The choke level is just as important as the shot charge and size when hunting these birds.

Waterfowl

Hunting ducks and geese during an open season or on a mitigation or destruction permit is mainly done with shotguns. Guns typically require at least one barrel with a full choke to take ducks adequately towards maximum range.

The loads used vary depending on the species being shot and the range from which it is shot. Typically, 1.125 to 1.25oz loads of No. 4 size shot are used for hunting black duck. No. 6 shot is suggested for smaller species such as teal, especially when shooting over decoys. The velocity of the load should be as high as possible to give as much energy as possible for shots at maximum range.

All states that have open seasons require the use of a lead-alternative shot such as steel or bismuth. Before commencing bird hunting, it is suggested that you get as much practice as possible using clay targets to ensure accurate and clean kills.

To undertake duck hunting, hunters will need to pass the Waterfowl Identification Test (WIT). Some states make available 'game reserves', where duck hunting is allowed on public land. Duck hunting is permitted on private land, but is subject to relevant state regulations.

Rabbits and hares

When hunting rabbit or hare, most hunters would suggest that the minimum calibre cartridge would be a .22 rimfire, which is effective up to a range of 100m. The .17HMR has become a popular calibre and provides an effective range beyond 100m when conditions are suitable for a light, high-speed projectile.

If using a shotgun, the range is reduced to around 50m. The most common shot sizes used for rabbit or hare hunting are between No. 4 and 6. These shot sizes are heavy enough to produce a clean kill at moderate ranges without causing too much damage to the meat.

If you are shooting for meat, the placement of the shot is important. Head shots are preferred because they don't damage any of the meat. Chest shots are also acceptable and result in clean kills but can result in some meat bruising.



Foxes and feral cats

Foxes and feral cats can be taken using the .22 rimfire or Magnum rimfire at ranges out to about 100m. The .17HMR offers an extension to this range if the conditions are right. However, most hunters would agree that using a centrefire rifle provides the advantages of a flatter trajectory and a higher projectile energy that enables these animals to be taken out to much greater ranges. The .17 Remington, .22 Hornet, and .222, .230 and .22-250 Remingtons are all ideal cartridges where clean kills are required along with minimal pelt damage. If pelt damage is not an issue, then you can use any centrefire rifle with calibres larger than those listed to achieve a quick kill.

Shotguns are useful for taking foxes and cats at closer range. The 12-gauge shotgun with 1.15oz loads of between BB and No. 2 size shot can kill a fox or feral cat cleanly to ranges no further than about 40m.

Wild dogs

Wild dogs are heavier than foxes and it is suggested that they not be shot with anything smaller than a .222 Remington, except at very close range. The .22-250 Remington and .243 Winchester are widely considered ideal choices for wild dogs. If shooting at close range, around 30m, the 12-gauge shotgun loaded with BB or SG shot will also be sufficient to produce a clean kill.

Feral goats

It is suggested that goats should not be shot with anything smaller than a .22-250 or a cartridge having a similar muzzle velocity and energy to the .243 Winchester. The .243 Winchester has a flat trajectory, which allows for accuracy at reasonably far distances. 'Brush' cartridges such as the .30-30 are sufficient for shooting feral goats at close ranges.

Feral pigs

Feral pigs can be quite dangerous and hunters should ensure that they have an adequate calibre with which to kill them quickly and humanely. When using a 12-gauge shotgun, it should be loaded with rifle slugs or buckshot. Lever-action



rifle cartridges of .30-30, .44-40 and .44 Magnum calibres from carbines are effective on feral pigs at close ranges. If a shot is to be taken at a longer range, the .243 Winchester, .25-06 Remington and other similar rifle cartridges are good for taking feral pigs in a humane manner.

Hunters often use specially trained dogs to assist in locating and hunting pigs. The dogs are trained to locate and hold the feral pig in an area for the hunter to then make a safe and accurate shot.

Buffalo, feral donkeys, horses and camels

Some of these larger species can weigh up to one tonne and require cartridges significantly larger than those already mentioned. Cartridges such as the .270 Winchester, 7mm Remington Magnum and .30-06 Springfield are commonly used for these large animals, and a .300 Winchester Magnum and .375 Holland & Holland Magnum may be used on larger animals again.

Some of these animals are very wary and when hunting in vast open areas, large calibres such as the .338 Lapua or even .50BMG would be appropriate and



provide a humane choice when long-range shooting is required.

Deer

Different states have different minimum suggested or legal calibres for deer hunting in Australia. If you would like to use only one particular type of rifle for hunting all deer species found in Australia, a calibre no less than .270 will maintain compliance with all the different state regulations.

If the number of firearms or calibres used for deer hunting is not limited, certain smaller species can be taken with a minimum calibre of .240 in Tasmania and .243 in New South Wales. You should always check with your state's or territory's authorities to ensure that you remain compliant with the current regulations.

Glossary of shooting terms

As a new shooter, you may find yourself at the range wondering what language everyone else is speaking. Like many sports, shooting has a language of its own. To help you understand what's being said, here are some of the most commonly used terms and their definitions.

Action: The combined parts of a firearm that determine how a firearm is loaded, discharged and unloaded. Most handguns are referred to as 'single-action' or 'double-action'. See 'Pistol, Double-action' and 'Pistol, Single-action'.

Action, Bolt: A firearm, typically a rifle, that is manually loaded, cocked and unloaded by pulling a bolt mechanism up and back to eject a spent cartridge and load another. Bolt-action firearms are popular for hunting, target shooting and biathlon events. A bolt-action rifle allows the shooter maximum accuracy, but may be too slow or cumbersome for some shooting sports.

Action, Lever: A firearm, typically a rifle, that is loaded, cocked and unloaded by an external lever usually located below the receiver.

Action, Pump/Slide: A firearm that features a movable forearm that is manually actuated to chamber a round, eject the casing and put another round in position to fire.

Action, Automatic: A firearm that loads then fires and ejects cartridges as long as the trigger is depressed and there are cartridges available in the feeding system (ie, magazine or other such mechanism). This type of firearm is rarely owned privately, with the exception of museums and collectors. The term 'automatic' is commonly confused with the terms 'semi-automatic' or 'self-loading'.

Action, Self-loading: A firearm in which each pull of the trigger results in a complete firing cycle, from discharge to reloading. It is necessary that the trigger be released and pulled for each cycle. These firearms are also called 'self-loaders'. The discharge and chambering of a round is either recoil-operated or gas-operated.

Ballistics: The science of studying projectiles. Ballistics can be 'interior' (inside the gun), 'exterior' (in the air) or 'terminal' (at the point of impact). Toolmark investigation is the attempt to microscopically match a bullet or fired cartridge case to a particular firearm.

Barrel: The part of the firearm through which a projectile travels. The barrel may be rifled (with spiral grooves on the interior of the barrel) or smoothbore (a smooth interior barrel with no grooves).

BB: Spherical shot having a diameter of .180" used in shotgun loads. The term is also used to designate steel or lead air rifle shot of .175"-diameter.

Black powder: The original propellant made from charcoal, saltpetre and sulphur that was used up until just prior to the turn of the 20th century in all firearms.

Black powder proof: The 'proof marks' stamped on a shotgun to designate its suitability to using black powder and not modern-day propellants.

Boat-tail: A projectile type having a tapered heel or base to improve ballistic efficiency.

Bore: The interior barrel forward of the chamber.

Bore diameter: On rifled barrels, the bore diameter is the interior diameter of the barrel from the tops of the lands (the highest point of the grooves). On a smooth barrel, the bore diameter is the interior dimension of the barrel forward of the chamber (not including the choke on shotgun barrels).

Breech: The part of a firearm that accepts the loaded cartridges into the barrel when open or 'broken'. Most modern firearms are breechloaders, as opposed to older-style muzzleloaders.

Bullet: A non-spherical projectile for use in a rifled barrel.

Bullet, Hollow-point: A bullet with a cavity in the nose exposing the lead core to facilitate expansion upon impact. Hollow-point cartridges are used for hunting, police use and other situations to avoid overpenetration.

Bullet, Wadcutter: A generally cylindrical bullet design having a sharp-shouldered nose intended to cut paper targets cleanly to facilitate easy and accurate scoring.

Butt: On handguns, it is the bottom part of the grip. On longarms, it is the rear or shoulder end of the stock.

Calibre: A term used to designate the specific cartridges for which a firearm is chambered. On rifled barrels, it is the approximate diameter of the circle formed by the tops of the lands. It is the numerical term included in the cartridge name to indicate a rough approximation of the bullet diameter (ie, .30-calibre is a .308"-diameter bullet).

Carbine: A rifle of short length and light weight originally designed for horse-mounted troops.

Cartridge: A single round of ammunition consisting of the case, primer, propellant, powder and one or more projectiles.

Cartridge, Centrefire: Any cartridge intended for use in rifles, pistols and revolvers that has its primer central to the axis at the head of the case. Most cartridges, including shotshells, are centrefire, with the exception of .22-calibre rimfire ammunition. If you were to look at the bottom of a centrefire cartridge, you would see a small circle in the middle of the base; hence, 'centrefire'.

Cartridge, Magnum: Any cartridge or shotshell that is larger, contains more shot or produces a higher velocity than standard cartridges or shot-shells of a given calibre or gauge.

Cartridge, Rimfire: A cartridge containing the priming mixture in the rim of the base. There are a few rimfire ammunition calibres besides the .22, but they are rare and not widely available.

Cartridge, Big bore: A general term that refers to larger-calibre cartridges, normally those with bore diameters ranging from .40 to .70" (and larger, should a sporting rifle ever be made with a bore diameter larger than .700"). Big bore rifle cartridges are generally intended for hunting big, tough and dangerous game.

Cartridge, Smallbore: A general term that refers to rimfire cartridges, normally of .22-calibre. This ammunition is used for target shooting, plinking and small-game hunting.

Chamber: In a rifle, pistol or shotgun, it is the part of the barrel that accepts the ammunition. A revolver has multiple chambers in the cylinder.

Choke: The degree to which a shotgun barrel constricts the shot column, thus affecting the spread of the shot or 'pattern' produced. Chokes may be cylinder, improved cylinder, modified, improved modified or full, to name a few, and may be formed either as part of the barrel at the time of manufacture, by squeezing the end of the bore down over a mandrel or by threading the barrel and screwing in an interchangeable choke tube.

Chronograph: An instrument used to measure the velocity of a projectile.

Cock: To place the hammer or striker in position for firing by pulling it back fully.

Combination (gun): The term given to a shotgun that has one shotgun barrel and one rifle barrel.

Cylinder: The round, rotatable part of a revolver that contains the chambers.

Discharge: To cause a firearm to fire.

Double barrel (also double gun): A firearm that has two barrels mounted to one frame. The barrels can be vertically (over-and-under) or horizontally (side-by-side) aligned.

Double trigger: A shotgun that has two triggers to fire each of its two barrels.

Ejector: A spring-loaded mechanism on a shotgun that expels the fired shells clear of the breech.

Extractor: A mechanism that raises the cartridges from the breech of the firearm for each cartridge to be removed by hand.

Firearm: The legal definition of a firearm in your state/territory will be one that you need to know. Contact your firearms registry.

Firing mechanism: The part of a shotgun that cocks and releases the firing pin. Commonly called the 'lock' of the shotgun.

Firing pin: The part of a firearm that strikes the primer of a cartridge to start the ignition of the primer.

Flinching: The act of a person jerking or moving away from the impending recoil of a firearm or simply closing their eyes upon firing.

Forcing cones: A tapered area that leads the projectile into a barrel from the chamber once the shotshell is fired.

Fore-end: The part of the wooden stock under the barrel/s and forward of the triggerguard or breech frame to afford a grip.

Frame: The basic unit of a revolver, pistol or break-open firearm, which houses the firing mechanism and to which the barrel and stock are assembled. In other firearms, it is called the 'receiver'.

Front-sight: The sight that is nearest to the muzzle.

Gauge: A term used to identify most shotgun bores, with the exception of the .410 shotgun. It relates to the number of bore-diameter-sized lead balls weighing 1lb. The .410 shotgun is a calibre and refers to the diameter of the barrel.

Grain: The unit of weight used for specifying propellant charges and projectile weights. It is often abbreviated to 'gr'. The grain was derived from the weight of a grain of wheat and is now taken as 1/7000 of 1lb.

Grooves: Twisted depressions that are cut or swaged into a rifle or pistol barrel to form the rifling (opposite of lands).

Hammer: The part of the firing mechanism that strikes the firing pin, which, in turn, strikes the primer.

Hammerless: A firearm having an internal hammer or striker.

Jacket: The envelope enclosing the lead core of a bullet.

Jam: A malfunction that prevents the action from operating. Jams may be caused by faulty or altered parts, ammunition, poor maintenance or improper use of the firearm.

Lands: The ridges that remain after grooves are cut or swaged into a rifle or pistol barrel to form the rifling (opposite of grooves).

Lead shot: Shot made from alloying lead with antimony to get varying hardness for various shooting purposes. The more antimony, the harder (but also the lighter in weight) the shot will be.

Load: The combination of components used to assemble a cartridge or shotshell. The term also refers to the act of putting ammunition into a firearm.

Lock: The mechanical parts of the firing mechanism assembly of the firearm.

Magazine: A receptacle on a firearm that holds several cartridges or shells for feeding into the chamber. Magazines take many forms, such as box, drum, rotary or tubular and may be fixed or removable.

Misfeed: Any malfunction during the feeding cycle of a repeating firearm that results in the failure of a cartridge to enter the chamber completely.

Misfire: A failure of the cartridge to fire after the primer has been struck by the firing pin. A 'hangfire', which is when the cartridge is delayed from firing, is a type of misfire. If the cartridge fails to fire, you should keep the firearm aimed at the target for at least one minute.

Muzzle: The front end of a firearm barrel from which the bullet or shot emerges.

Muzzleloader: Any firearm loaded through the muzzle. Muzzleloader firearms are also called 'black powder' firearms. They may be antique, replica or of modified design.

Nitro proof: The certification of a shotgun for use with modern-day nitrocellulose/nitroglycerine-based propellants.

Nose: The point or tip of a bullet.

Pattern: The distribution of shot fired from a shotgun.

Pellets: The small or large balls of certain compounds such as lead, steel, tungsten, tin or bismuth used as ammunition for shotguns.

Pistol: A term for a hand-held firearm with a

single chamber. A revolver, on the other hand, has at least five chambers.

Pistol, Automatic: A common but improperly used term to describe semi-automatic or self-loading pistols. See Action, Self-loading for a description of how these pistols operate.

Pistol, Single-action: A firearm requiring the user to manually pull back the hammer before the firearm can be discharged (like the old Western revolvers).

Pistol, Double-action: A firearm requiring the user to either manually cock the hammer or simply pull the trigger to allow the firearm to cock and release the hammer on its own.

Plinking: The informal shooting at inanimate objects at indefinite points. Plinking typically refers to casual shooting at various targets for entertainment and practice.

Powder: A commonly used term for the propellant in a cartridge or shotshell.

Pressure: The force exerted over the surface of the chamber developed by the expanding gases generated by the combustion of the propellant.

Primer: An ignition component consisting of a brass or gilding metal cup, priming mixture, anvil and foiling disc. It creates an explosion when hit by a firing pin, igniting the propellant powder. It is the most dangerous component of the cartridge.

Propellant: The chemical composition, which, when ignited by a primer, generates gas. The gas propels the projectile.

Receiver: The basic unit of a firearm, which houses the firing mechanism and to which the barrel and stock are assembled. In revolvers, pistols and break-open firearms, it is called the 'frame'.

Recoil: The rearward movement of a firearm resulting from firing a cartridge or shotshell.

Recoil pad: A buttplate, usually made of rubber, to reduce the recoil or 'kick' from shouldered firearms.

Reload: A round of ammunition that has been assembled using previously fired cases.

Revolver: A firearm with a cylinder having several chambers so arranged as to rotate around an axis and be discharged successively by the same firing mechanism. A self-loading pistol is not a revolver because it does not have a revolving cylinder.

Rib: There are two types of ribs - a side rib, which separates the barrels of an over-and-under shotgun, and the top sighting rib that provides a flat sighting plane.

Rifle: A firearm having spiral grooves in the bore and designed to be fired from the shoulder.

Rifling: Grooves and lands formed in the bore of a firearm barrel to impart rotary motion to a projectile.

Round: One complete small arms cartridge.

Safety catch: A device on a firearm designed to provide protection against accidental or unintentional discharge under normal usage when properly engaged.

Self-loading/Semi-automatic: A firearm which fires, extracts, ejects and reloads only once for each pull and release of the trigger.

Shotgun: A smoothbore shoulder firearm designed to fire shells containing many pellets or a single slug.

Shotshell: A round of ammunition containing multiple pellets for use in a shotgun. The multiple pellets in a shotshell are called 'shot'.

Silencer: A device used as an expansion chamber about the muzzle of a firearm, to contain the gases discharged during firing and thus reduce some of the noise produced. Silencers are illegal or restricted in all states and territories within Australia.

Slug: A common name for a single projectile fired from a shotgun. Can be of a different shape for differing gauges.

Small arms: Any firearm capable of being carried by a person and fired without additional mechanical support.

Steel shot: A shot pellet developed from soft iron as an alternative to lead shot when shooting waterfowl due to environmental concerns.

Stock: The wood, fibreglass, wood laminate or plastic component to which the barrel and receiver are attached.

Swing: The act of moving a shotgun along the trajectory of a moving target in order to shoot it. 'Swinging through' a target refers to catching up to the target and then passing through it to ascertain lead so you do not shoot behind it, so that both the gun and target are then moving in the same direction at similar speed.

Tang: A piece of flat metal extending from the receiver of the firearm. It can be the top or bottom tang or both. The top tang usually houses the top lever and safety catch, while the bottom tang often incorporates the rear of the trigger-guard.

Trajectory: The path of a bullet through the air.

Trigger: The part of the firing mechanism (lock) that causes the firearm to fire when it is pulled by the shooter's 'pointing' finger.

Trigger, Hair: A slang term for a trigger requiring very low force to actuate.

Triggerguard: A metal enclosure that houses the trigger.

Trigger pull: The average force which must be applied to the trigger to cause the firearm to fire.

Unload: The complete removal of all unfired ammunition from a firearm.

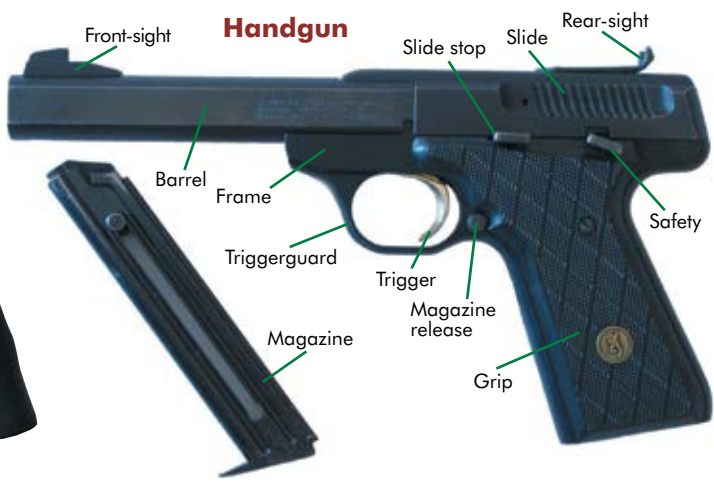
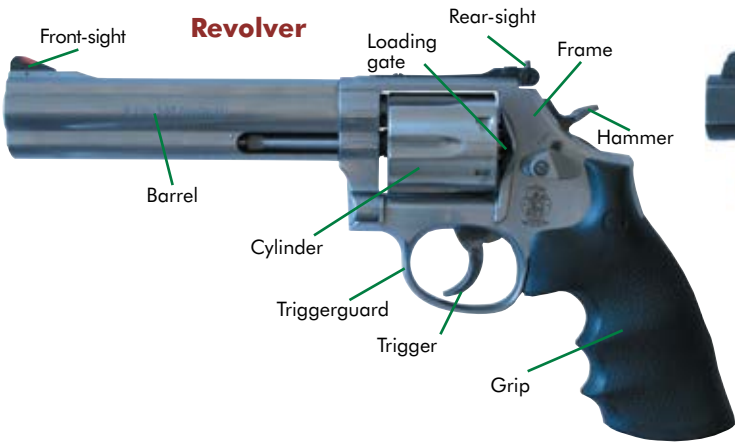
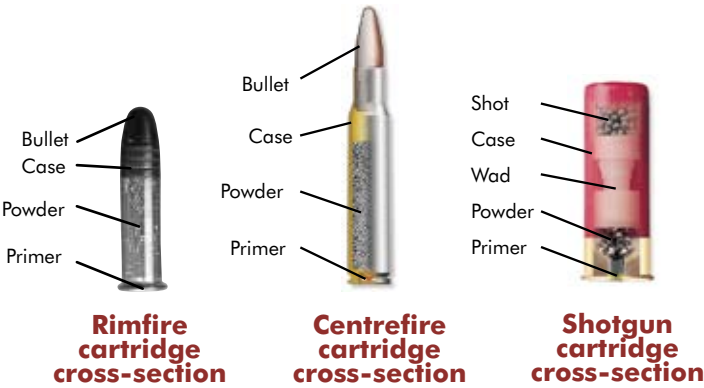
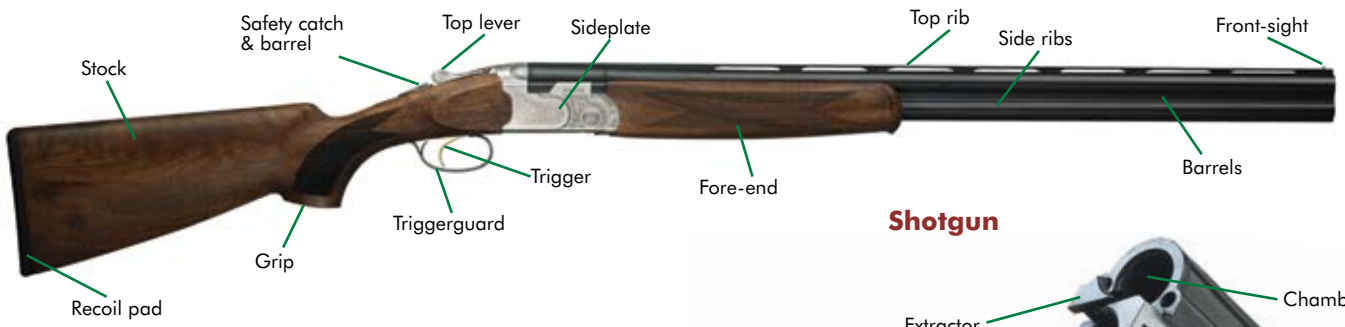
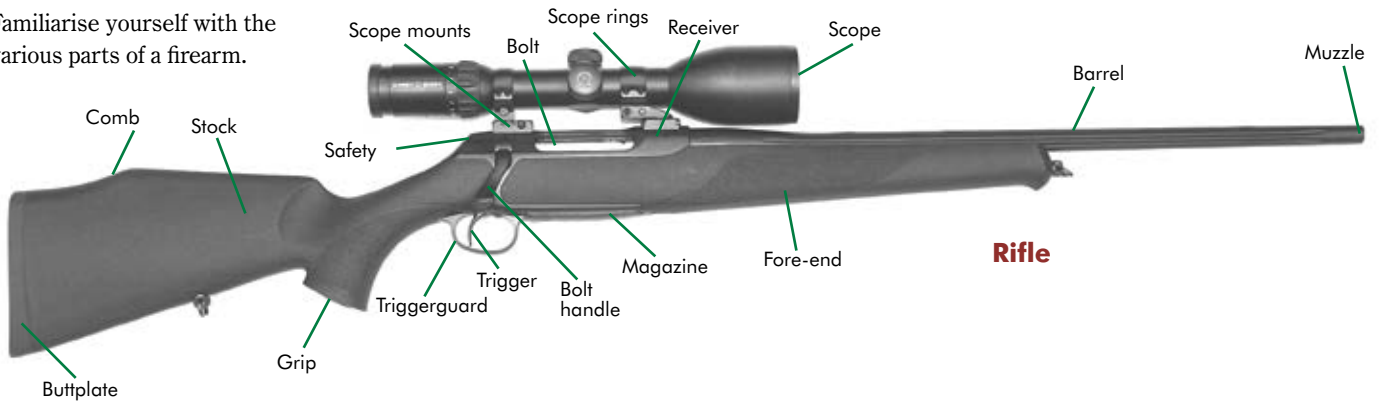
Velocity: The speed of a projectile at any point along its trajectory, usually listed in feet per second (fps).

Wad: A space device in a shotshell, usually cup-form plastic or paper discs, which separates the propellant powder from the shot.

Weapon: An instrument used in combat. The term is never used when referring to sporting firearms.

Know your firearm

Familiarise yourself with the various parts of a firearm.



References

Some of the information in *Shooting and the SSAA - A Beginner's Guide* was reproduced from Geoff Smith's 1999 *A Guide To Hunting & Shooting in Australia*, Regency Publishing, Regency Institute of TAFE, South Australia; *Firearms Safety Source Work Book*, Regency Publishing, Regency Institute of TAFE, South Australia; *Non-Fiction Writer's Guide: A Writer's Resource to Firearms and Ammunition*.