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Firearms and Projectiles

1 Introduction

- 1.1 Youth Science Canada and Regional Science Fairs allow students to conduct research involving firearms as long as they adhere to federal and provincial/territorial regulations and guidelines that are designed to protect the safety of the researchers.
- 1.2 The primary responsibility for the safety of the student and others lies with the Adult Supervisor. This person must be familiar with appropriate safety procedures, and is responsible for ensuring they are followed.
- 1.3 Federal and Provincial laws set certain standards for the use of firearms including some exceptions for minors to possess firearms without having to be licensed. Youth Science Canada requires a higher standard to ensure student, supervisor and public safety. Therefore all students aged 12 to 17 must have successfully completed the Canadian Firearms Safety Course and obtained a minor's possession certificate issued under the federal Firearms Act S.C. 1995, c. 39. This rule shall be strictly adhered to by students wishing to do a firearms science project.
- 1.4 Any experimental design involving firearms or projectiles, must be approved by a Regional or Youth Science Canada National Ethics Committee to ensure compliance with regulations and restrictions. If necessary, Youth Science Canada will refer the project to the authorities cognizant of current regulations. Converting a firearm to fully automatic mode and/or converting a centre fire magazine to hold more than five rounds of ammunition is a violation of the Criminal Code.
- 1.5 Use of firearms requires proper supervision by an Adult Supervisor. The Adult Supervisor must be directly responsible for overseeing student experimentation and must provide proof to the Regional Science Fair Ethics Committee of his/her licensing and expertise in the use of a firearm, or device, and/or explosives BEFORE the project commences.
- 1.6 When considering a project which involves the use of firearms, ammunition, or explosives, it is strongly suggested that students and Adult Supervisors make contact with one or more of the following agencies/government ministries: RCMP, Provincial Police, Municipal Police, Federal and Provincial Justice Ministries, Provincial Ministries responsible for hunting and fishing regulations, Municipal offices regarding the use of firearms within their jurisdiction, National and Provincial hunting organizations, Natural Resources Canada.
- 1.7 This policy includes all firearms and projectiles, such as pellet guns, paint ball guns, slingshots, potato guns or other devices that propel an object.

2 Legislative Framework

- 2.1 The lawful use, licensing and registration of guns is the responsibility of the federal government. The provinces regulate hunting activities. Some municipalities also enact bylaws related to the use of weapons.

- 2.2 Firearms in Canada fall into one of three classes - [non-restricted](#), [restricted](#) or [prohibited](#). Non-restricted firearm: any rifle or shotgun that is neither restricted nor prohibited. Most common long guns are non-restricted, but there are exceptions.
- 2.3 Any device that has the following characteristics is also classified as a firearm:
- A muzzle velocity of 152.4 meters per second or more and/or
 - A muzzle energy of 5.7 joules or more.
- 2.4 Potential violations of the Criminal Code must be considered and researched prior to experimentation. Criminal Code considerations that should be addressed by students and Ethics Committees in reviewing a project include:
- Possess, trade, transfer or give as a gift a firearm to a person without a Possession Only Licence (POL) or a Possession and Acquisition Licence (PAL) with the proper classes of firearms.
 - Possession of a weapon dangerous to the public peace.
 - Unlawful storage of a firearm, ammunition or explosive.
 - Pointing a firearm.
 - Careless use of a firearm.
 - Criminal Negligence causing bodily harm or death.
- 2.5 Other considerations for projects involving the use of firearms, ammunition, and explosives include Provincial and Federal acts such as the Environmental Protection Act, Migratory Bird Game Act and Canada Shipping Act.
- 2.6 Prohibited weapons may NOT be used in a science fair experiment or displayed or worn at a science fair. Prohibited weapons include spiked wrist bands and neck bands, maces, martial arts throwing weapons, nanchakus or any other weapons defined by the Criminal Code as prohibited.
- 2.7 Pellet guns, paint ball guns, slingshots, potato guns or other devices that propel an object are dangerous weapons. These devices may be used with the pre-approval of the Regional Science Fair Safety Committee. Inspection of the device and area of use is the responsibility of the Regional Science Fair Safety Committee. The device shall not be displayed at the Regional Science Fair or the Canada-Wide Science Fair.

3 Firearms

- 3.1 Anyone possessing a firearm, even temporarily, must have a license. Those over 18 must have a [Possession and Acquisition Licence \(PAL\)](#). Some over 18 will have the legacy [Possession Only License \(POL\)](#) which is being phased out. Persons 12 - 17 years of age may acquire a [Minor's Licence](#) which permits someone under the age of 18 to possess non-restricted firearms for the purposes of: target practice, competition, hunting, or instruction in the use of a firearm. The application forms for this type of licence can be obtained from the [Chief Firearms Officer](#) in your province.
- 3.2 Minors cannot possess restricted or prohibited weapons.
- 3.3 All restricted and prohibited firearms must be registered. Restricted and prohibited firearms cannot be used in a science fair project. The Firearms Act prohibits the possession of a restricted and/or prohibited firearm. Section 8(4) An individual who is less than eighteen years old is not eligible to hold a licence authorizing the individual to possess prohibited firearms or restricted firearms or to acquire firearms or cross-bows. Firearms Act S.C. 1995, c. 39.

- 3.4 An individual may load a firearm or handle a loaded firearm only in a place where the firearm may be lawfully discharged in accordance with all applicable Acts of Parliament and the legislature of the province/territory, regulations made under such Acts and Municipal By-Laws.
- 3.5 Where practicable, the discharging of a firearm should be conducted at a licenced range under the supervision of a qualified range master. All available safety equipment (e.g., goggles, ear protection) should be used. First Nations People and other persons residing in northern areas where licensed firearms ranges and qualified range masters are not readily available shall provide a safety protocol to the Ethics/Safety Committee for approval before the project commences.
- 3.6 In all cases involving firearms, the Adult Supervisor must possess a POL or PAL and/or a Canadian Firearms Safety Course or equivalent, and be knowledgeable in the use of the firearms or devices that will be used in the experimentation. In all cases, the Adult Supervisor must have reached the age of majority (18 years).
- 3.7 Students wanting to use firearms must show proof of a Minors License and Canadian Firearms Safety course or equivalent. Copies of these certificates must be provided to the Ethics Committee in advance of beginning the experiment. The Ethics/Safety Committee shall retain copies of the documents.
- 3.8 For firearms requiring federal and/or provincial/territorial permit or registration, the student or Adult Supervisor will be expected to have the permit prior to the onset of the experimentation. A copy of the permit must be submitted to the relevant Ethics Committee. Only firearms/explosive devices, which have federal, provincial/territorial and municipal approval, may be used in experimentation. Proof of this approval must be presented to the Ethics Committee with the student's proposal in advance of beginning the experiment.
- 3.9 Most bows are classified as non-restricted weapons. [There are some exceptions.](#)

4 Ammunition

- 4.1 All ammunition used in a science fair project must be factory loaded ammunition. Reloaded ammunition is strictly prohibited.
- 4.2 All hyperlinks were accessed on 25 January 2015.