



Discover the fun and challenge of learning the art of shooting pistols. Air pistols and .22 caliber small bore pistols may be used. The objective is to teach kids safety, responsibility, discipline, and good sportsmanship.



Exploring 4-H Shooting Sports Pistol

Spark Activity: The Science Behind the Sport



Shooting involves the transfer of energy. Energy cannot be created or lost, but it can be transferred from one type to another.

Build a shooting device from an empty thin, plastic water bottle. Drill a hole the size of a straw in the cap and hot-glue a 3-inch piece of a drinking straw into this hole. Wad up a small piece of paper to make a spitball “bullet” and load it into the straw. To shoot your spitball, you’ll first place your empty bottle sideways on the floor. Then you’ll drop a weight (try using a full water bottle) onto the empty bottle to get it to launch! You can experiment with dropping your weight from different heights to see how that affects how far the “bullet” will travel. Take measurements of the distance traveled at various drop heights.

The potential (stored) energy of the weight is greater the higher you hold it above your shooting device. This potential energy is transferred into kinetic energy (motion) when it drops and hits the shooting device, launching the spitball. You can measure the differences in potential energy by seeing how much further the paper bullet travels across the floor when the drop height of the weight is changed! Changing the amount of air pressure in an air pistol does this same thing!

4-H Project Levels and Goals

Beginner

- Learn first shot fundamentals
- Learn range commands
- Know steps to firing a pistol
- Practice dry firing

Intermediate

- Demonstrate different shooting positions including supported, elbows and freehand
- Demonstrate live firing
- Select proper ammunition
- Safely store and transport pistols

Advanced

- Learn proper range setup and target scoring
- Improve form-stance, grip, trigger control and breathing techniques
- Demonstrate sight picture and sight alignment to others
- Identify errors in form and position and coach improvements

Put Your Project Into Action

Show Your Skills

- Poster exhibit of proper shooting positions
- Display actual paper targets shot with their scores displayed, and include sight alignment
- Poster display labeling parts of a pistol and ammunition
- Design an experiment that will demonstrate trajectory of a projectile
- Poster display of different types of actions pistols may have (bolt, revolver, break, etc.)
- Make a gun rack, gun safe, or gun case

Service and Leadership

- Volunteer at a local sportsman's club or VFW event
- Contact your Illinois Department of Natural Resources (IDNR) volunteer safety coordinator to see if you can assist with a hunter safety class
- Explore volunteering at a local park or conservation organization fundraiser
- Lead a demonstration workshop
- Contact your local Soil and Water Conservation District to offer assistance at a program
- Help mentor younger 4-H members interested in pistol

Entrepreneurship

- Make and sell leatherworking projects such as holsters and gear bags
- Custom build hard shell, lockable cases with padding

Technology Connection

- Visit an indoor gun range with an automated target scoring system

Connecting with a Mentor

- Local police department
- IDNR conservation police officer
- Inquire at any local range to shadow a range safety officer

Events

- Illinois State 4-H pistol competition
- National 4-H Shooting Sports competitions



Careers Related to Shooting Sports - Pistol

Military	Pistol Range Owner/
Law Enforcement/ Police Officer	Operator
Pistol Instructor	Gunsmith

Start a Conversation

Why is it harder to shoot a pistol accurately than a rifle accurately?

What are the advantages of a pistol over a rifle?

Is there any pistol that can shoot a shotgun shell that has lots of pellets or do they all shoot just one projectile (pellet or bullet)?

Want to learn more?

go.illinois.edu/air22pistol

Explore more at Illinois 4-H!

4-H.extension.illinois.edu



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