

## Mythbusters Video -- Bullets Fired Up

Name: \_\_\_\_\_

- 1) What is the “Bullets Fired Up Myth?”
- 2) Do you think the myth is plausible, or do you think it will be busted? Give any supporting reasons or rationale, if possible.
- 3) How did Adam first attempt to determine how high a bullet goes? Explain the experiment that he and Jamie ran.
- 4) Why did the 9mm round (bullet) go farther into the ballistics gel than the 30-06 round?
- 5) According to computer simulations, how high does a 30-06 bullet go? How long is the bullet in the air? (10,000 ft, 58s)
- 6) According to computer simulations, how high does a 9mm bullet go? How long is the bullet in the air? (4,000 ft, 37s)
- 7) What is meant by the term, “terminal velocity?” How do gravity and air resistance compare at this speed for any object?
- 8) How did Adam measure the terminal velocity of a bullet?
- 9) What is the approximate terminal velocity of a 9mm bullet?
- 10) What is the approximate terminal velocity of a 30-06 bullet? About how many feet per second is this?
- 11) What is the name of the device used to measure the speed of a fired bullet?
- 12) What source of propulsion did Adam and Jamie use to fire the bullets at the desired speed?
- 13) What does “psi” stand for?
- 14) How many psi did Adam need to give the bullet a speed of 146 ft/s?
- 15) What is the name of the electronic device used to trigger Adam and Jamie’s homemade gun?

- 16) According to Dr. Muller, from Stanford University, is the “Bullets Fired Up” myth plausible? What evidence does he give?
- 17) Adam’s initial “wind tunnel testing” suggested that a falling bullet falls “on its side.” Does medical evidence support this?
- 18) What is meant by “ballistic trajectory?”
- 19) What is meant by “spin stabilized?”
- 20) What was the purpose of firing a BB, a 9mm round, and a 30-caliber round straight down into the dry lake bed?
- 21) How deep did the 9mm bullet penetrate the lake bed after being shot straight up?
- 22) What was the shape of the hole in the lake bed made by the 9mm bullet? What do Adam and Jamie think that this suggests?
- 23) After failing to find the 30-06 bullets that were fired straight up, Adam comes up with a plan to use a remote-controlled device to drop bullets from 400ft. Why does Adam think that this is high enough?
- 24) How quickly does a falling object pick up speed when dropped from a height?
- 25) How deep did the 30-06 bullet penetrate the lake bed?
- 26) After all the testing, and all the evidence, is this myth “busted,” “plausible,” or “confirmed?”