

Kentucky 4-H Shooting Sports - Ice Cream Cone Shotgun Shell Lesson

GRADES: 6-8

OBJECTIVE: To provide a hands-on visual learning experience about the composition of shotgun shells and the function of each component.

TOTAL TIME: 20 – 40 minutes

MATERIALS:

- Computer & Projector
- Handouts with shotgun shell components labeled for reference
- Ice Cream Shotgun Shell Materials:
 - Hershey Kisses
 - Large Marshmallows
 - Cake Sprinkles
 - Ice Cream
 - Mini M&M's
 - Vanilla Wafers
 - Ice Cream Cones (Cake Cones – will only need the bottom portion)

VOCABULARY:

- Primer: the chemical and/or device responsible for initiating the propellant combustion that will push the projectiles out of the gun barrel.
- Wad: It's the part of a **shotgun shell** that keeps the shot (pellets) together but separate from the powder
- Propellant (Gun Powder): an explosive consisting of a powdered mixture of saltpeter, sulfur, and charcoal. The earliest known propellant explosive, gunpowder has now largely been superseded by high explosives, although it is still used for quarry blasting and in fuses and fireworks.
- Shell Cup: casing for the shotgun shell that holds all the components
- Pellets: often made of lead, these were the original projectiles for shotguns

ACTIVITY 1: INTRODUCTION

Introduce the lesson by discussing the topic of what disciplines shotgun shells are used in and their components.

- Pull up a diagram of a shotgun shell and its components on the projector screen so all the youth can see
- Pass out the handouts with the labeled shotgun shell diagram to each youth for them to study as you talk
- Discuss each component of the shotgun shell, what it is called and its purpose

ACTIVITY 2: ICE CREAM CONE SHOTGUN SHELL

Pass out the ingredients for the ice cream shotgun shells to each youth:

- 1 Ice Cream Cone (Shell Body/Hull)
- 1 Hershey Kiss (Primer)
- 1 Marshmallow (Wad)

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- 1 tsp Cake Sprinkles (Gun Powder)
- 1 scoop Ice Cream (Shell Cup)
- 1 TBSP cup Mini M&M's (Pellets)
- 1 Vanilla Wafer (Crimped Top)

Explain what each component of the shotgun shell is represented by from the ingredients given. Lead the youth in putting together their ice cream cone shotgun shells:

1. Place unwrapped Hershey Kiss in the bottom of the cone
2. Place Large Marshmallow on top of Hershey Kiss and gently mash down
3. Pour in Cake Sprinkles on top of the marshmallow
4. Place scoop of ice cream in top of sprinkles
5. Pour Mini M&M's on top of ice cream
6. Top cone with Vanilla Wafer

To make activity more interactive:

- Ask youth how they would put their shotgun shell together at the very beginning of the activity, alternatively;
- Have youth tell you which ingredient should be added next and why
- As you add each ingredient quiz youth on what purpose each component plays to the shotgun shell as a whole

REFLECTION:

After completing their ice cream shotgun shells have youth reflect on the activity using questions such as:

- What do you think is the most important component of the shotgun shell?
- What would happen if the shotgun shell was missing (insert component)?
- After going through this activity why do you think it is so important to use high quality ammo in our shooting sports programs?

LESSON ADAPTATION:

If there is not enough time to first cover the components before building the ice cream shotgun shells, have the youth build the shotgun shells as you are explaining each part and its purpose. Then provide them with the shotgun shell components handout to take home and study. Prepare a short quiz for them at the next meeting to test their knowledge. If you need the lesson to take more time, include an additional activity where the youth themselves play the role of different shotgun shell components.

ADDITIONAL ACTIVITY:

- Divide youth into groups and provide them with the materials to create the ice cream shotgun shells.
- Tell youth the names of all the components without sharing with them the diagram or how the shotgun shell is put together.
- Have youth work together in teams to figure out how the different components fit together to create the shotgun shell, give them 5-10 minutes to discuss amongst themselves and create their attempt.
- Go around the room and have groups share how they ordered their components and why. At the end show them the shotgun shell diagram and go through how it should be correctly put together seeing which group was the closest.

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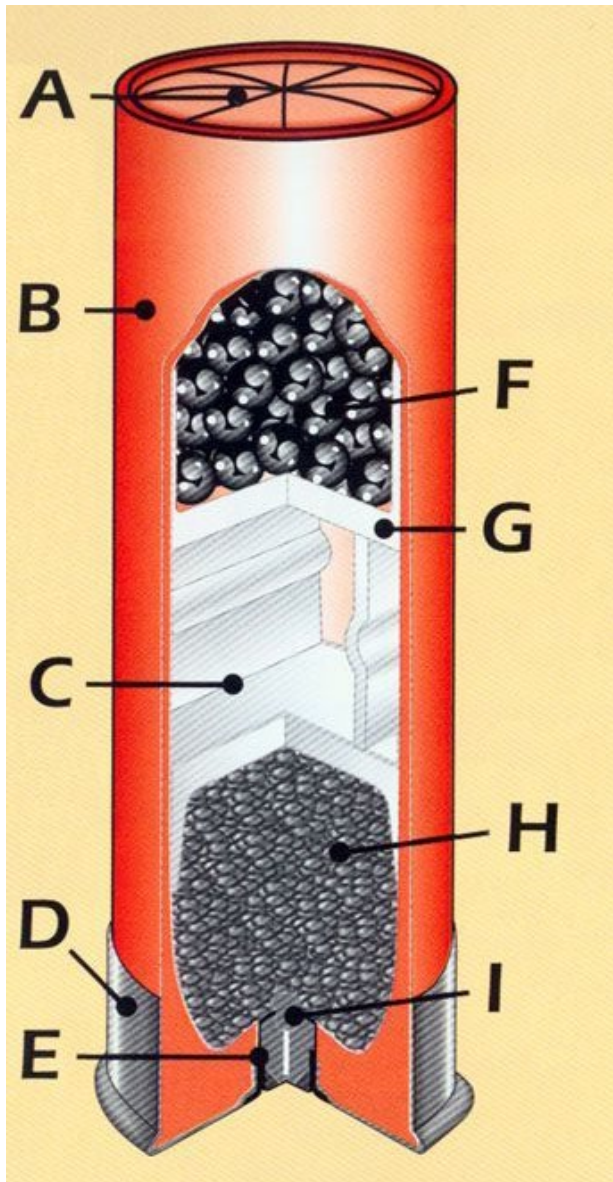
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Shotgun Shell Components:

A: Crimped Top

B: Shell Body/Hull

C: Wad

I: Primer

H: Propellant (Gun Powder)

G: Shell Cup

F: Pellets

Firing Sequence:

1. Firing pin strikes primer
2. Primer detonates
3. Propellant (gun powder) is ignited
4. Burning powder forms gasses
5. Expanding hot gasses, with nowhere else to go due to the shell body/hull propels the wad and pellets forward through the crimped top of the shotgun shell

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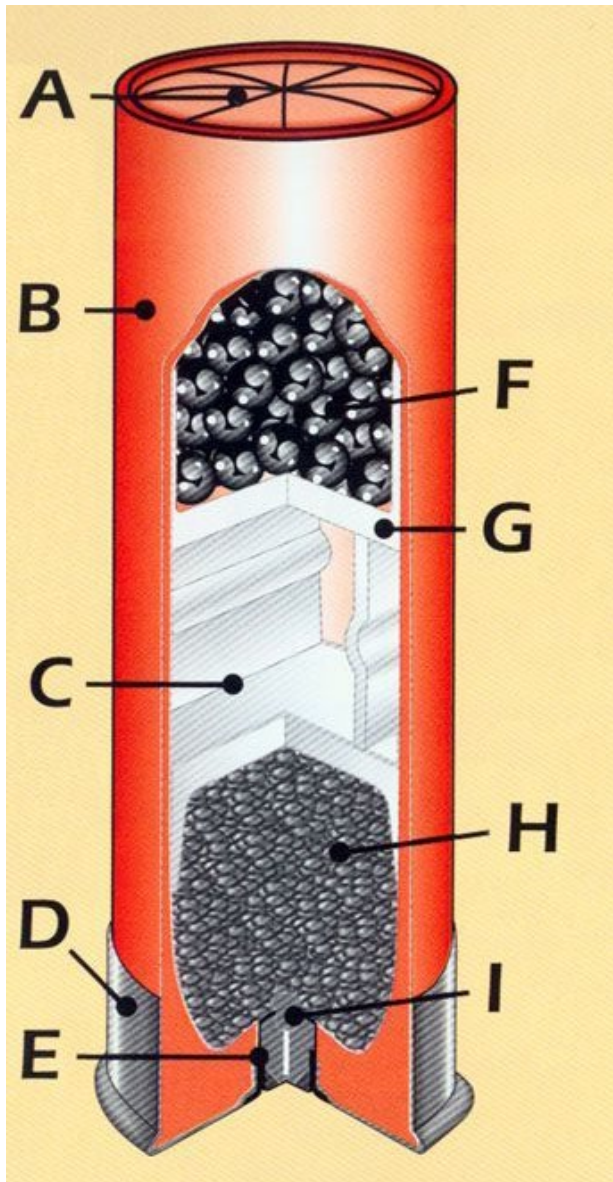
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