

Mass/Force Demonstration

Overview

The mass/force demonstration shows how much force an animal has when kicking or charging a young child. The demonstration also contains information about animal safety.

Objective

To show students the dangers when working with or around various types of livestock.

Introduction

1. Introduce yourself to the students; let them know your name, background, and anything else that may interest them and ties into the presentation.
2. Make the students aware that the information you will present to them is important and that they need to pay attention.
3. Inform the students that they will participate in an activity as time allows and they must be responsible during this activity. Stressing responsibility is especially important if you deal with a younger group of students.

Introduce the Livestock Safety Topic

- Students all have their own stories and experiences to tell.
- Introduce the livestock safety topic and ask the students if they know what some hazards might be when working with livestock.
- Ask the students if they have ever worked with animals. Ask how many have worked with livestock without any adult supervision, or if they have ever been around animals shortly after they were born.

Activity

Materials Needed

- Mass/force demonstration display
- Display posters

Conducting the Demonstration

- Explain to the students that the large ball represents a large animal.
- Show them the small ball; that the small ball represents a human.
- Have the students look at the size differences between the two balls and discuss why there is such a large size difference.
- Ask the students what might happen if a large animal kicks or charges them.
- Place the two balls in the top holes in the display and drop them into the display at the

same time.

- The large ball will propel the small ball backward. This occurs because the large ball has a greater mass and exerts a greater force on the small ball.
- Explain to students that most animals are larger than they are. Because of this, livestock could severely injure them.
- Repeat the demonstration as time allows.

Wrap Up

After the activity, talk to students and discuss how livestock could injure them. Use the following discussion questions:

- Have you ever heard of someone being injured by an animal?
- Do all animals react the same way when scared or nervous?
- Should you go near animals shortly after they are born?
- Why should an adult be nearby when you are around livestock?

Re-discuss the safety rules when working with livestock. Go through the following list with the students and make sure they understand why the importance of these rules.

- Be calm, move slowly, and avoid loud noises
- Wear steel-toed shoes
- Avoid the hind legs of the animal
- Approach large animals at the shoulder
- Children should avoid animals with newborns
- Children should avoid stallions, bulls, rams, and boars
- Always have an escape route when working with animals in close quarters
- Wear helmets when riding horses
- Even though an animal may look friendly, all animals must be treated with respect. All are unpredictable.
- Be alert when around livestock. Animals are unpredictable. Understand some of the common instincts of animals.
- Keep children and bystanders out of livestock handling areas.
- Make sure gates, fences or pens are in good repair.

- Use proper restraining equipment.
 - Check to see that an escape gate or path is available.