**Step Through The Hole**

**Background:** This activity can be used to introduce the HACCP plan.

**Instructions:**
- Split students into groups of approximately two to six people.
- Give each group a plain sheet of letter-sized paper and a pair of scissors.
- Instruct them to cut the paper, using only the piece of paper and scissors, in such a way that it makes a ring that each person in the group could step through.
- Quietly give one or two groups the set of directions found with this lesson plan (*Directions for Step Through the Hole*) and instruct them to quietly follow the directions EXACTLY, while not letting the other teams know that they have been given the directions.
- The groups that successfully completed the assignment were given clear directions, and therefore had a plan to follow. That is why they were so successful. It is important to have a clear plan regarding the health of your pigs in order to be safe and successful producers.

**Processing Questions:**
- Why were some groups able to successfully complete the assignment?
- How does that relate to having a herd health management plan?
### Step Through the Hole Directions

1. Fold the paper in half, the short way (also known as “hotdog” style).

2. Cut two slits near the right and left edges of the folded paper, each perpendicular to the fold. The cuts must come down from the folded half, not up from the unfolded edges. Be sure not to snip off the ends of the paper.

3. Cut off the folded edge from slit to slit, being careful not to cut the fold at each end.

4. Then, make about 40 cuts with your scissors. Alternate each cut, first coming down from the unfolded edge, then coming up from the folded edges. The cuts should be parallel to the first slits you made.

5. Finally, open up the whole sheet. It should unfold kind of like an accordion. If you did it right, the hole is big enough for you to squeeze through!
Identifying Hazards

Background: Discuss that there are three types of hazards: chemical, physical and biological. Explain to the participants that it is important to distinguish between these types of hazards. Inform the students that they will have practice distinguishing between the three.

Instructions:
- Distribute Identifying Hazards worksheet to each participant.
- When finished, poll the audience for the answer to each question and share correct responses.
- Answers
  - *Salmonella* bacteria (biological)
  - Broken needle (physical)
  - Pesticide residue (chemical)
  - Piece of glass (physical)
  - Pathogenic *E. coli* bacteria (biological)
  - Wood chips (physical)
  - Oil and grease residue (chemical)
  - *Listeria* bacteria (biological)
  - Razor blade (physical)
  - Piece of plastic (physical)
  - The parasite *Trichinella* (biological)
  - Violative drug residue (chemical)

Processing Questions:
- Why is it important to distinguish between the three types of hazards?
- How can you prevent a chemical contaminant?
- How can you prevent a physical contaminant?
- How can you prevent a biological contaminant?
- Which categories do you, as a producer, have the most control over?

Objective
To inform the participants the three types of hazards.

Materials
Pencil
*Identifying Hazards* worksheet

Timeframe
5 Minutes

Age
All
Identifying Hazards

According to the HACCP system, hazards can be identified as: biological, physical or chemical.

- Biological hazards are microbes that cause diseases
- Physical hazards are things like broken needles and metal
- Chemical hazards are violative chemical residues left in the meat

Classify the following objects in meat as **biological, chemical** or **physical**:

- **Salmonella bacteria**
- **Broken needle**
- **Pesticide residue**
- **Pathogenic E. Coli Bacteria**
- **Wood chips**
- **Oil and grease residue**
- **Listeria bacteria**
- **Razor blade**
- **Piece of plastic**
- **Trichinella spiralis parasite**
- **Gasoline residue**
**Hazard Hunt**

**Background:** Discuss the importance of hazard analysis and critical control points with the group. Use examples to illustrate to them how herd health is a crucial component of assuring quality. Explain that this will be their opportunity to identify hazards that may challenge quality in pork production.

**Instructions:**
- Divide group into teams of three to five youth.
- Give each team a *Hazard Hunt* worksheet.
- Team members read their scenario and answer the questions on each card.
- Ask for the groups to share their answers.

**Processing Questions:**
- The first part of the activity demonstrates hazard analysis. Where could something go wrong?
- The second part demonstrates critical control points. What things do we need to do to prevent a problem from occurring?
- Can you prevent problems that happen either before or after your role in the food supply continuum?
- What are some things that you could do as a consumer to ensure food safety?

**Objectives**
- Youth will identify potential hazards in a production system.
- Youth will learn the concepts of hazard analysis and critical control points.

**Materials**
- Pencil
- *Hazard Hunt* worksheet

**Timeframe**
- 5-10 Minutes

**Age**
- All
Hazard Hunt

Scenario 1: You are a swine producer. You raise pigs for a living. You farrow sows and finish all your pigs.
- What food safety problems could happen on your farm?
- How/where might your pork become contaminated?
- What can you do to prevent these problems?

Scenario 2: You run the largest pork harvesting facility in the country. You harvest pigs and sell the products to grocery stores.
- What food safety problems could happen in your plant?
- How/where might your pork become contaminated?
- What can you do to prevent these problems from happening?

Scenario 3: You are the manager of the Super Food Stores meat department. You purchased boxed wholesale cuts from The Big 10 Packing Company. Your store staff further cut and package beef and pork into retail cuts to sell to consumers.
- What food safety problems could happen in your store?
- How/where might your pork become contaminated?
- What can you do to prevent these?
**Biosecurity**

**Background:** Discuss with the participants how facility biosecurity is an important factor in maintaining quality. Explain to them that biosecurity involves factors that may not be visible.

**Instructions:**
- Place Glo Germ in a bag or container.
- Split the class into groups of three to five.
- Have one group transfer a feed sample from one bag or container to the bag or container with Glo Germ.
- You can also have the participants mix the samples together in a container, and place Glo Germ in there as well.
- Have another group walk outside or into another room (prior to the exercise place some Glo Germ on the floor).
- Ask the groups if they think any issues of food safety have been broken.
- Use a black light to demonstrate how disease can be transferred on clothing and shoes, plus how reusing bags or not cleaning out feeders can contaminate feed.

Note: The portion of transferring feeds can be used to illustrate GPP #8.

**Processing Questions:**
- When the black light was used, why did spots show up on the feed and shoes?
- What biosecurity practices can prevent this?

**Objectives**
- Youth will understand the importance of biosecurity and how it affects food quality.
- Youth will understand how to provide biosecurity on their operation.

**Materials**
- Glo Germ (can be purchased online at www.glogerm.com or at any science store)
- Black light
- Feed samples in bags (any size)
- Mixing containers for feed

**Timeframe**
5-10 Minutes

**Age**
All