

Surgical Pack Wrap – Sample Activity

Purpose

In fine dining, the waitstaff plays a crucial role in upholding cleanliness. Waitstaff diligently packages napkins and silverware at the end of each shift, following specific protocols tailored to each restaurant's utensils. This approach ensures the swift turnover of tables between guests and contributes to diners' overall health and satisfaction by minimizing the risk of pathogen transmission through dining utensils.

Similarly, the veterinary field relies on a parallel skill set to maintain aseptic conditions. In the preparation for surgical procedures, veterinary assistants take on the responsibility of assembling sterile surgical packs. These packs, which contain specifically arranged sterilized tools within surgical drapes and gauze, pictured in Figure 1, are vital for veterinarians to perform surgeries swiftly and safely. Knowing exactly what and how many of an item is inside of a pack allows veterinarians to know if all items are accounted for once the suture process begins. This means that even the number of gauze pads is carefully counted.



Figure 1. Surgical Instruments

After packing all the equipment, a technician begins with sanitation. Using autoclave tape as an indicator on the inside and outside of the pack ensures effective sterilization. The proactive preparation of these packs underscores our commitment to the well-being of animals and the efficacy of veterinary care.

In both contexts, applying aseptic techniques supports daily operations' efficiency and creates environments where health, safety, and precision are paramount. Through these practices, professionals strive to contribute to the well-being of both diners and animals alike, fostering trust and confidence in their services.

Materials

Per pair of students:

- Permanent marker
- Surgical drape, large (Paper towel)
- Surgical drape, small (Paper towel)
- Surgical pan (cell phone or notepad)
- Tape, masking, 3 inches

Per student:

- Pencil

Procedure

Practice wrapping and unwrapping a surgical pack in pairs.

1. Pair up with another student.

Wrap Pack Procedure

- See Figure 5–13 on for additional visual directions. The red in the diagrams is the inside of the drape, and the blue is the outside.

2. Put the largest drape in a diamond shape on the table with one point towards you.
 - This is the outer drape.
3. Put a smaller surgical drape on the large drape in the same pattern.
 - This is the inner drape.
4. Put the instrument pan on the center of the cloth.
 - Avoid touching the pack for the remainder of the wrapping process.
5. Working with the inside surgical drape, fold the first point or tab directly in front of you.
 - Fold the tab up over the pack.
 - Fold the excess back over the pack.
 - See Figure 2 for an example of the first point.
6. Fold the left tab.
 - Fold over the pack to the right.
 - Pull the wrap tight by holding your right hand on the center of the pack.
 - Folding the excess back to the left.
7. Fold the right tab.
 - Fold over the pack to the left.
 - Pull the wrap tight by holding your left hand on the center of the pack.
 - Fold the excess back to the right.
 - See Figure 3 for an example.
8. Fold the last tab.
 - Tuck the top two corners.
 - Pull the last tab towards and into the pocket, leaving the last corner facing out. See Figure 4 for example.
9. Repeat Steps 5–8 with the outside drape.
10. Put one piece of masking tape across the tab.
 - The drape should look like an envelope.
11. Use a permanent marker and tape to label the pack with the following information.
 - Contents
 - Date
 - Initials of who packed

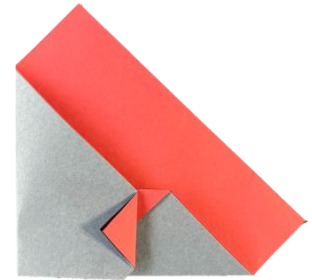


Figure 2. Left Tab Folding



Figure 3. Right Tab Folding

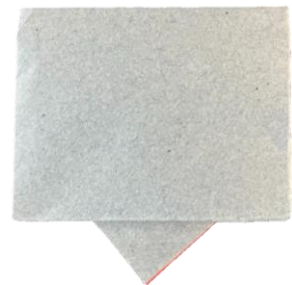


Figure 4. Final Wrap

Open Pack Procedure

12. Pull the tape off and stick it to yourself.
13. Hold the pack at the base with your non-dominant hand.
14. Pull the tab over the pack.
 - This step is the only time your hand goes over the pack.
15. Only touch the corner to pull the right tab over and tuck it into the holding hand.
16. Only touch the corner to pull the left tab over and tuck it into the holding hand.
 - Do not reach over the sterile pack.

17. Pull the closest tab toward you.
18. Switch hands to drop the outer drape to the floor.
19. Repeat Steps 14–17 with inner drape.
20. Hand the pack to the surgeon or gently toss it onto the table.
21. Complete the analysis questions.
 - q1 When could pathogens be introduced during the *Wrap Pack Procedure*?
 - q2 When could pathogens be introduced during the *Open Pack Procedure*?

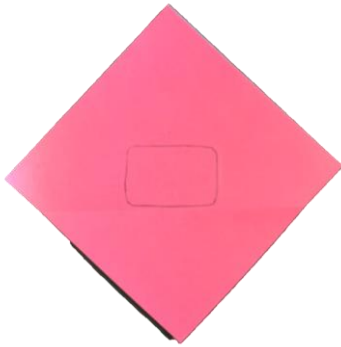


Figure 5. Starting Position

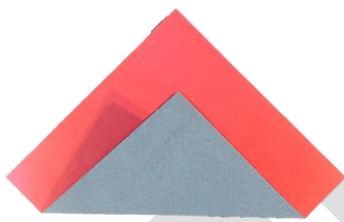


Figure 6. Close Tab, Fold One

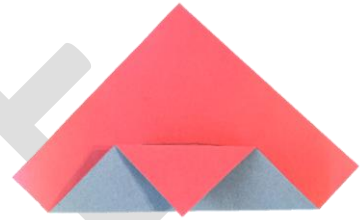


Figure 7. Close Tab, Fold Two

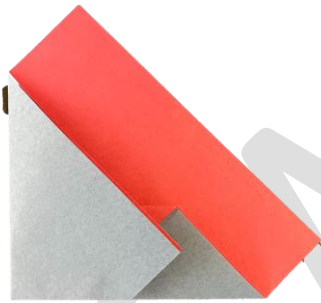


Figure 8. Left Tab, Fold One



Figure 9. Left Tab, Fold Two



Figure 10. Right Tab, Fold One



Figure 11. Right Tab, Fold Two



Figure 12. Far Tab, Fold One

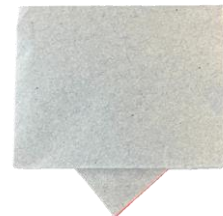


Figure 13. Far Tab, Fold Two

Sample Teacher Notes

Teacher Preparation

Each pair needs one prewrapped surgical tray prepared using the surgical wrapping process.

Student Performance

Part One

In the first part of the procedure, students divide into pairs, with each team member assigned specific tasks. Before starting, students tie back long hair and put on a hair net. The two procedures in Part One are distributed between team members, who read and practice their assigned procedures individually. The team members are responsible for teaching their procedures to their teammates in Part Two.

Wrap Pack

Students put down a large drape, add a smaller surgical drape in the same pattern, and place the instrument pan in the center. Students fold and wrap the pack in a specific pattern, creating an envelope-like appearance. Then, students use masking tape to secure the tab, apply indicator tape, and label the surgical pack.

Open Pack

Students remove the tape, hold the pack at the base, pull tabs, and unfold the pack in a specific sequence. Hands should not reach over the sterile pack during this process. Finally, students repeat the inner wrap and hand the pack to the “surgeon” or gently toss it onto the table.

Results and Evaluation

After this activity, students have developed practical skills for wrapping and unwrapping a surgical pack. These processes are entry-level skills in a veterinary clinic and reinforce equipment identification and safety procedures introduced earlier in the unit. Use the potential responses in Table 1 to check students’ understanding of pathogen spread through contamination.

Table 1. Analysis Questions and Potential Responses

Q1	When could pathogens be introduced during the <i>Wrap Pack Procedure</i> ?	Touching the surgical pan with any non-sterile item could contaminate the pack. Reaching across the open pack increases the risk of contamination.
Q2	When could pathogens be introduced during the <i>Open Pack Procedure</i> ?	Similarly to wrapping the pack, touching the surgical pan to any non-sterile item could contaminate the pack. Reaching across the open pack increases the risk of contamination.

Sample Activity

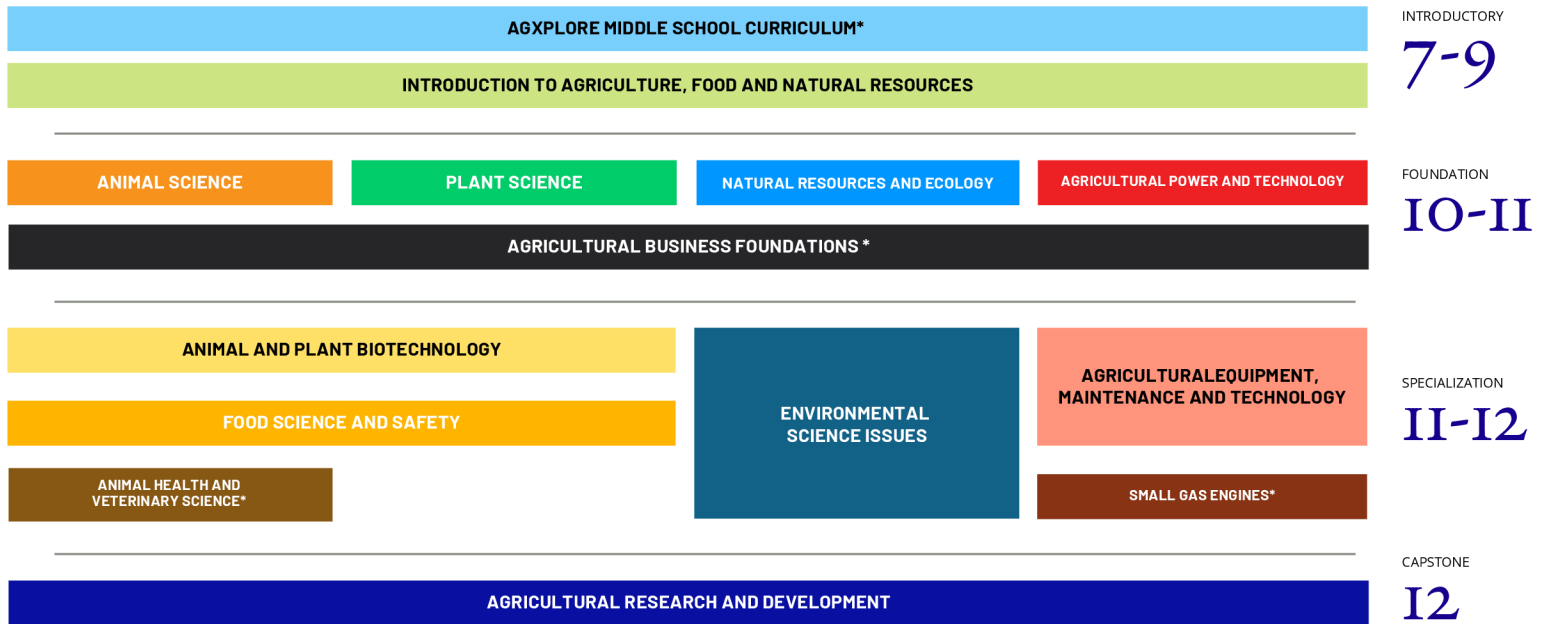
This sample is a modified version of *Activity 1.2.3 Surgical Pack Wrap* from the CASE 4 Learning *Animal Health and Veterinary Science* (AHVS) curriculum. For more information about the course visit www.case4learning.org. The sample has been modified for time and material simplification to fit a workshop format and is not for resale or profit. Teachers are permitted to use this sample in their classroom without certification.

Contact **CASE 4 Learning** to receive permission to use this sample at a teacher professional development.

Purposeful Curriculum

CASE has sequenced courses at four levels that enhance the delivery of agricultural education through inquiry-based learning and technical skills.

Courses and Instruction Levels



Mission

To design industry-leading, inquiry-based curriculum and teacher education to create lifelong learners and prepare students for the future of agriculture.

Standards Aligned

CASE develops curriculum with industry feedback and aligns courses to National Agriculture, Food, & Natural Resources and Career & Technical Education standards.

Professional Development and Lifetime Certification

CASE 4 Learning enhances agricultural education with inquiry and project-based learning to prepare the next generation of the agricultural workforce through teacher certification and professional development.

CASE Institutes

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Teachers attend the entire training at the host site.



Virtual

Teachers attend the entire training online. Teachers will receive materials via mail, and are responsible for their lab space.



Hybrid

Teachers receive training both virtually and in-person based on the course.



ANIMAL HEALTH AND VETERINARY SCIENCE

Course Description

Animal Health and Veterinary Science (AHVS) provides an in-depth examination of veterinary science, focusing on the interplay of factors affecting animal health. Students address practical challenges, fostering critical thinking and an understanding of the intricate relationships between animal health and care.

The central focus of the curriculum is to cultivate technical skills crucial for effective animal healthcare. Skills in prevention, diagnosis, and treatment techniques are applied through hands-on practice. Students integrate knowledge into case studies, which further develop problem-solving abilities and provide insight into the practical implications of veterinary science across diverse contexts.



Equipping teachers

- Specialization level
- Semester course
- Inquiry and project based instructional practices
- BriefCASE professional development

Engaging students

- ✓ Interpersonal and technical skills
- ✓ Learn and demonstrate techniques in prevention, diagnosis, and treatment techniques through hands-on skill practice
- ✓ Practically apply knowledge learned

Instructional Units

- Safety and Terms
- Prevention
- Diagnosis
- Treatment
- Skill Assessment

Flexibility & Adaptability

CASE provides a comprehensive professional development experience, in addition to a work-life balance so teachers can best educate their students. Course work is adaptable and customizable based on teacher preference to fit all geographies and communities.

“CASE AHVS has transformed my Agricultural Education classroom, engaging students with hands-on learning in veterinary science. It's incredible to see them develop critical thinking and practical skills, truly preparing them for real-world animal healthcare careers. This course has added an incredible new tool to use in building the future of our community.”

- Ryan Maiden, Washington



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Equipping Teachers Engaging Students

