



Developed with Ethan Dado – Agriculture, Food, and Natural Resources Instructor at Mankato Area Public Schools

Stitch it up

Volume 17 | Gr. 9-12

Time: 1-2 Days



AS.07.01.01.b.

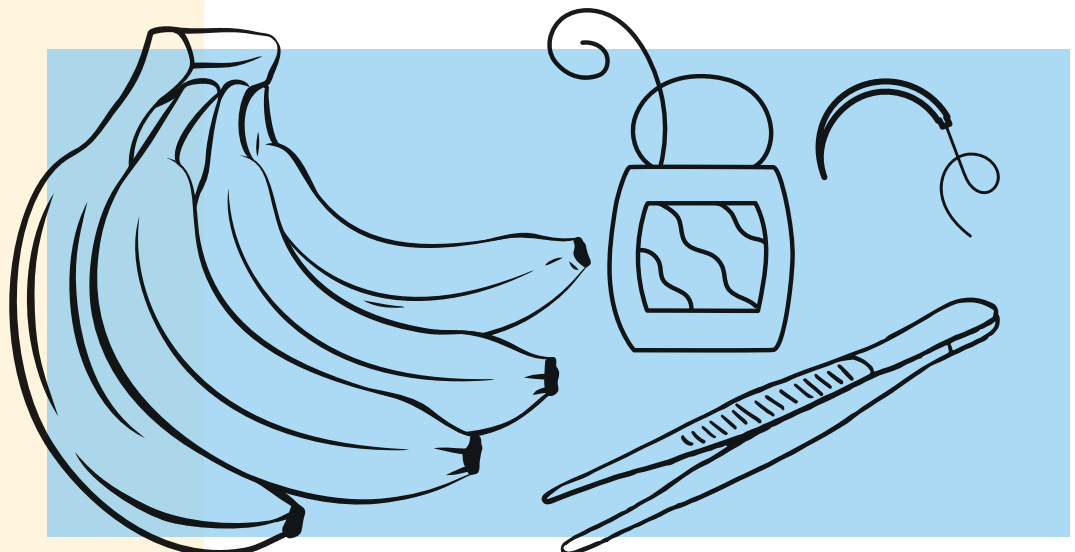
Describe and demonstrate the proper use and function of specific tools and technology related to animal health management.

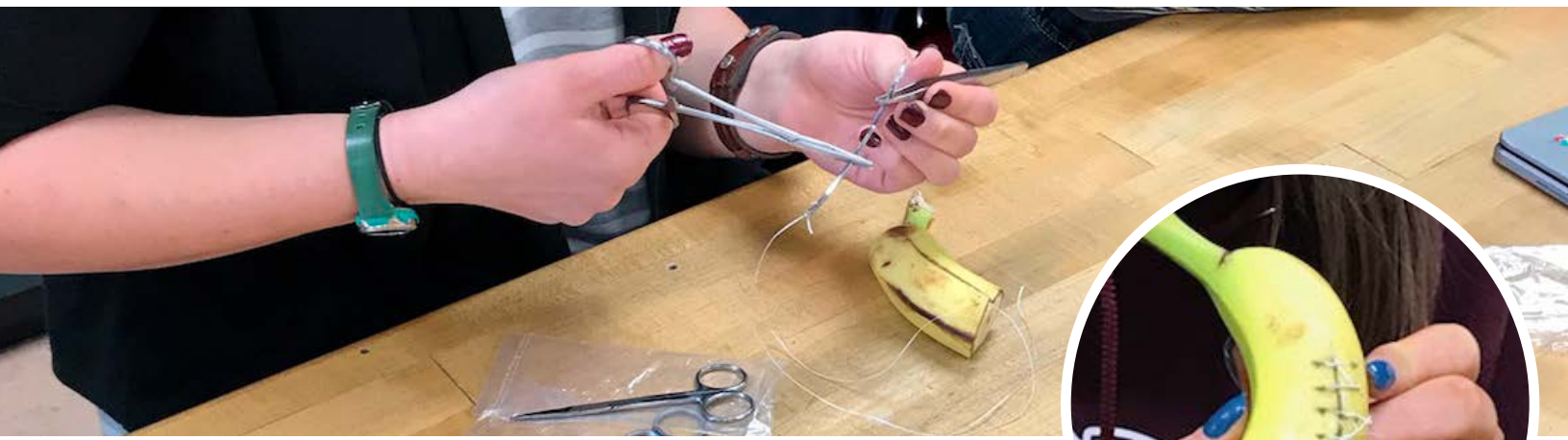
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Perform simple health-check evaluations on animals and practice basic emergency response procedures related to animals.

Materials list

- Bananas, 1 per student
- Dental floss, 4"-12" per student
- Suture needles, 1 per student
- Suture Kit (**C30642**)
- Forceps, 1 per student (**SA01133**)
- Nasco Tweezers, 4¾" L (optional) (**5400247**)
- Two bowls for overnight banana storage in refrigerator
- Cling wrap to seal bowls
- Sharpie® marker





Day 1

Introduction

- How many of you have ever had stitches?
- Can anyone remember and share with us how they looked? What was the experience like? What safety measures were taken by the medical staff?
- What are stitches used for? Create a list as long as possible.

Activity

Today we are going to learn two types of sutures. Each student will need one banana, cut in four pieces, dental floss, suture needle, and forceps. Students will end up with two pieces of banana with sutures and two will be used as the “control” samples.

• Continuous sutures

1. View video: https://www.youtube.com/watch?v=LFzkH6U_M5c
2. Have students practice **continuous sutures** on $\frac{1}{4}$ of a banana.
3. Next, the students will complete their final set of continuous sutures on another piece of banana. On this sample, have them write their name and place it in a bowl, suture-side down.

• Interrupted sutures

1. View video: https://www.youtube.com/watch?v=_PH-Hzz6ixY
2. Repeat the process above, but this time with **interrupted sutures**.
3. Next, the students will complete their final set of interrupted sutures on the last piece of banana. On this sample, have them write their name and place it in a bowl, suture-side down.

Closure

- Once students have finished, have them walk around and help other students who may be struggling.
- When class is done, place the bowls in the refrigerator for observations in two days.

Day 2

Introduction

- Begin the discussion asking students about their suturing experience and ask them to write their answers down.

Sample questions: How difficult or easy did you find the two types of sutures. Can you see benefits or challenges with either one? What do you expect to find today when we look at the samples?

Activity

1. Inform the students bananas turn brown when exposed to oxygen and that the places under the sutures should still be white as the suture should have kept out the oxygen.
2. Take bananas out of the refrigerator and distribute them to the correct students.
3. Have students inspect their suture samples, compare with classmates and predict what they might see when they peel the bananas.
4. Peel the bananas and make observations between their suture samples and those of their classmates. Review their hypotheses and snap a picture (if they have the capability) of their banana.

Closure

Answer these questions on same piece of paper as a reflection:

- How did you do?
- What was difficult?
- What was easy?
- What did you learn?
- If you were to do this again, what would you do differently?