

AUTOPSY OF A DILL PICKLE

BACKGROUND

Notes for teacher: This activity serves as an introduction to dissection. It also reinforces concepts of anatomical directions, planes, and body cavities. Some imagination must be exercised.

Prepare the pickles prior to class. Insert toothpicks for arms and legs. Add a stuffed olive (secured with a toothpick) for a head. Use these suggestions to add injuries to the pickles:

Grain of rice in the brain – brain tumor.

Using a red marker, color a toothpick and jab it into the pickle for a stab wound.

Make a slit using a scalpel and insert a popcorn kernel or BBs for gun shot.

Crush a part of the pickle to show trauma.

Inject blue food coloring into the lung area to simulate a drowning victim.

Insert a red bead for a normal heart. Insert a black bead for a diseased heart or heart attack.

Add a toothpick inside down the back to serve as the vertebral column.

Background required of students: Students should have read about anatomical planes, directions, regions, and body cavities. They should have illustrations at hand from text or coloring book sheets. They should know what pH means and have some experience with a microscope (one microscope could be set up with a tissue sample by the teacher as a demonstration). If their text has a vignette or section on autopsies, it could be assigned.

Class time needed: 30-45 minutes

Materials needed: 1 large dill pickle for each pair of students, toothpicks, dissecting equipment, pH paper and chart, microscope, slides, and coverslips.

PROCEDURE

Build up interest in autopsies for a day or two. Don't tell them what they will autopsy. On the day of the activity, have dissecting trays laid out with tools on them and covered with a white sheet. Place a sheet over the pickle jars, too. Any props or drama you can think of will add to the effect.

Pass out student worksheets (below).

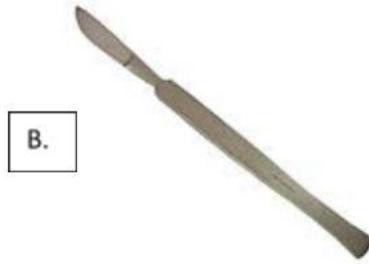
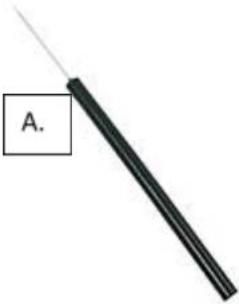
Caution the students about use of sharp tools and proper behavior in the lab (very important, as this is pretty silly). Display each tool and describe its use in dissection. Students take notes and do matching on hand-out.

Hand out the trays and pickles. Partners works well. Instruct the students to make arms and legs and faces on their pickle using toothpicks. Now they may begin the autopsy. Stress the importance of making drawings and labeling them. Mingle among the students and ask questions about orientations, landmarks, incisions. Pickles do not really have cavities, ribcages, sternums, etc., so you may have to help some students with this leap of imagination. To open the "abdominopelvic region" with hinged doors, you need to cut all the way to the base of the pickle and rather deep.

Set out pH paper and demonstrate its use, if necessary.

Evaluation: Correct student worksheets for accuracy of labeling, and reasonable use of evidence in reaching conclusion.

Autopsy Pre-Lab – Identify the Dissection Tools



C.



B.

E.



F.



D.



Match the tool letter above to its name and function below.

Forceps _____

Used for slicing and cutting large specimens _____

Scissors _____

Will grasp delicate tissues _____

Blunt Probe _____

To cut skin and fascia or to spread tissue layers _____

Dissecting needle _____

Used to manipulate or to poke at objects/openings _____

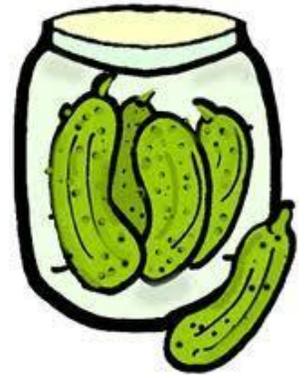
Scalpel _____

Used to hold back layers for better viewing or to keep on the tray

Dissecting Pins _____

To inspect small organs or tease apart tissues _____

Autopsy of a Dill Pickle



Performed by Dr. _____ and Dr. _____

Coroner, from Irwin County. Date of autopsy _____

Time _____ Date _____

Pickle Name _____

Cause of Death _____

Tools: scalpel, forceps, dissecting pan, scissors, dissecting needles (or toothpicks), dropper, pH paper, slides and coverslips, microscopes, digital camera/phone, gloves.

Body Exterior: Describe the exterior of the body to find any wounds, scars, tattoos, etc. Make a sketch and add labels of both the dorsal and ventral views of your victim. Label all markings on your drawing. Note any abnormalities, objects, etc. and their locations. (using appropriate terms for locations) Ex: a **deep** cut is located in the **anterior** end **proximal** to the face.

<p>Dorsal description:</p>	<p>Ventral description:</p>
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Body Interior:

1. Turn your specimen so that its ventral side is up. You will make an incision (cut) and you will draw and label your pickle according to these instructions: The ventral body cavity (**A**) is opened by a deep “Y-shaped” incision. The arms of the Y start at the **anterior** surface of shoulders (**B**) and join at the **inferior** point of the sternum (breastbone) (**C**) to form a single cut that extends to the **pubic** area (**D**).

a. What type of cut are you making when you cut the “Y” incision? (sagittal?, transverse?, frontal?, oblique?) Explain.

b. Draw the pickle and the lines of incision. Label A – D.

2. After the ribcage is sawn through, the **abdominopelvic** region (**E**) can be opened like a hinged door (**F**) to expose the internal organs (**G**). The contents of the **thoracic cavity** (**H**) will also be visible. The second stage of the autopsy includes careful examination of the internal organs. The brain is to be examined, a portion of the skull must be removed by using a **transverse cut** at the very top of the head. (The face, arms and legs are usually not dissected unless there is a specific reason for doing so.)

a. Draw the pickle at this stage of the autopsy. Label E – H. Indicate the **superficial** and **deep** layers.

b. Also make an enlarged drawing of at least 2 organs.

c. Remove the skull cap and remove the brain. Check the brain and look for any abnormalities.

Record findings here:

3. Toxicology: Collect a sample of body fluid using the dropper and test the pH of the body fluid using the pH paper.

pH= _____

Is this body fluid acidic, basic or neutral? _____

(Normal pH of human body tissues is 7.35-7.45)

(pH of pickle juice is around 4)

4. Prepare your patient for burial by replacing the organs and closing the flaps. Wrap your patient in paper towels and have a brief memorial service for him or her. Dispose of the remains in the trash receptacle.

5. Thoroughly rinse your dissecting tools and pan. Dry them completely with paper towels and return these to your teacher. Throw the pH paper in the trash can.

Conclusions/final autopsy report:

What is your finding about the cause of death of this patient? Support your opinion with specific details from the autopsy. Use appropriate terminology from this unit and apply within your answer. Write a story that goes with the evidence. Include the detailed descriptions of the body to support your claim.

Adapted by Katherine M. Noonan from Dough Bunch's "Dissect a Pickle."
Adapted from Heather Peterson, MTSA Journal, Spring 2006, www.msta.mich.org