# Banana Dissection – Planes & Anatomical Directions

Health Science 20

PURPOSE: To demonstrate your knowledge of the directional terms and planes by performing a 'dissection' on a banana. It is important to keep in mind that directions refer to the banana in its anatomical position.

THINK TWICE, CUT ONCE!

MATERIALS:

Grab the following:

- 3 bananas
- Sharpie
- Paper towel
- Blue piece of paper
- Scalpel

NOTE: Never use a scalpel as a pointer! ALWAYS cut away from yourself. Leave at station at ALL times!

NOTE: The anatomical position for a banana is with the stem at the top, butt at the bottom, and the "spinal curvature" pointing to the back.

PROCEDURE:

Get into a group of 2 or 3 before completing the following:

1. Patient Identification:
    a. Remove any stickers.
    b. Create a **family name** for your banana family (ex. The Barry Family).
    c. Give each banana family member a creative/humorous name (ex. Parent 1: Bob Barry, Parent 2: Betty Barry, and child Becky Barry) and write this on your paper.

2. Draw the following on each member of your banana family:
    a. A face (two eyes, nose & mouth) on the **anterior** region slightly **inferior** to the stem.
    b. Hair on the **posterior** region slightly **inferior** to the stem.
    c. Two **lateral** legs (one on either side) slightly **superior** to the butt of the banana.
    d. Two **lateral** arms (one on either side) slightly **superior** to the legs of the banana.
    e. Butt cheeks on the **posterior** region slightly **inferior** to the **medial** region.
    f. A belly button on the **anterior** side slightly **superior** to the **medial** region.
    g. Give **Parent 1** a tattoo of a cross on the **anterior** side in the **left** upper thoracic quadrant.
    h. Give **Parent 2** a tattoo of a flower on the **posterior** side slightly **superior** to the butt cheeks.
    i. Give the **child** a **vertical** stitch marking on their **anterior** side, **medial** region, **proximal** but **inferior** to the face.

3. Family Portrait:
    a. Position Parent 1 in the **supine** position, Parent 2 in the **prone** position, and the child in the **fowler** position.
    b. Optional: Take a selfie with your group and your banana family and share with your teacher/family/friends.

**Call your teacher over at this point for a DRAWING AND POSITION check worth marks.**

4. Dissection:
   Note: all cuts must completely sever the banana into separate pieces.
    a. Parent 1:
        i. Perform a **transverse** cut in the **medial** region slightly **superior** to the belly button.
        ii. Perform a **midsagittal** cut on the **inferior** half of the body
    b. Parent 2:
        i. Perform a **transverse** cut in the **medial** region slightly **inferior** to the belly button.
        ii. Perform a **coronal** cut on the **inferior** half of their body.
    c. Child:
        i. Perform a **transverse** cut **inferior** to the buccal region but **distal** to the belly button.
        ii. Perform a **transverse** cut in the **medial** region **proximal** but slightly **superior** to the butt.
        iii. On the middle section created as a result of the previous 2 cuts, perform 2 **parasagittal** cuts, one on either side of the **medial** plane.

**Call your teacher over at this point for a DISSECTION check worth marks**.

<u>LAB QUESTIONS:</u>

**Please complete the following questions on a piece of looseleaf and ensure ALL group members names are on the top right corner.**

1. How do a frontal and midsagittal cut differ?
2. Speculate what type of surgery the child might have had resulting in their stitch marking.
3. Draw a simple sketch of what the inside of the banana looks like in a transverse cut and a midsagittal cut. Label the skin, flesh, and seeds of the banana in both drawings.
4. Considering medical imagery technology (X-Rays, CT Scans, and MRIs), why might it be useful to use multiple viewing angles (planes) in determining the size of a lung tumour?
5. Draw a simple sketch of what you think a kidney would look like when:
    a. Viewed from the frontal plane.
    b. Viewed from the transverse plane.