Title: The Language of Anatomy
Grade Ranges:
____K-4
____5-8
_X_9-12

Subject Tag:
Science: The Human Body

Synopsis:
This lesson is designed to teach and reinforce the "language of anatomy." Learning anatomical directions and orientation can be frustrating for students. This lesson offers something for all learning styles. In pairs, students label each other by anatomical direction. Then, students label drawings of themselves with anatomical directions. Finally, students enjoy playing the familiar childhood game "Simon Says" to review the information.

Keywords:
anatomy, anatomical orientation, anatomical direction, body cavities, superior, inferior, anterior, posterior, medial, lateral, intermediate, proximal, distal, superficial, deep, abdominal, pelvic, buccal, nasal, orbital, dissection terms

Body:
Activity#1

1. Each student needs a stack of note cards or post-it notes. On the cards they write anatomical directional and orientation terms. Students should also put an arrow or arrows pointing in the direction the term describes on their cards. And they can write out the body cavities as well.
   At a minimum, students should include the following terms: superior, inferior, anterior, posterior, medial, lateral, intermediate, proximal, distal, superficial, and deep.
2. After students have completed their cards, have them find a partner. Using tape if they do not have post-it notes, students then take turns placing the cards in the correct location on their partner's body. For example, if the card is SUPERIOR (with an arrow pointing up), it could be placed on a student's forehead; or, if the card is DISTAL (with an arrow pointing toward the outer edge), the card might be placed on the student's fingers or wrists.
3. As they place each card on their partner's body, they should make a correct sentence using the term.
   Examples: The head is SUPERIOR to the neck.
   The fingers are DISTAL to the elbow.

Note: Save the cards from this activity to use in the next activity.

Activity #2

1. Obtain large sheets of butcher paper or banner paper. Cut the pieces large enough so that students can trace themselves on the paper and have a full outline of their bodies.
2. After students have taken turns tracing their partners, have them label their bodies using the cards from the previous activity. Partners should check each other for accuracy.
3. When all regions are labeled correctly, ask students to quiz each other using the terms. Here students can also add the body cavities — i.e. abdominal, pelvic, buccal, nasal, orbital.
   Examples: Which cavity is inferior to the nasal cavity?
   Which cavity is posterior (dorsal) to the abdominal cavity?

Which organs are lateral to the heart?

Activity #3 – " Simon Says"

1. Refresh students about the childhood game "Simon Says." They are to follow all directions that Simon says. (Note: "Mother May I" works, too!)
2. Have the class stand up. Start giving commands…
   - Simon says touch your buccal cavity.
   - Simon says touch a region superior to your neck.
   - Simon says point to a body part that is distal to your elbow.
   - Point to your abdominal cavity. (Students should NOT respond to this because Simon didn't say!)
3. Students can be eliminated by either failing to do what Simon requests, OR by acting on a command that Simon DID NOT request!
4. If they miss a command, students must sit down.
5. You can play the game several times. Choose students to lead the game too. That way they will have to pay attention to everyone else to make sure they understand the commands.

Objectives:

1. Students will be able to use directional terms when referring to different body parts and regions.
2. Students will be able to work with a partner to learn and review anatomical terms.

Standards:

NY: The Living Environment 4.1. Living things are both similar to and different from each other and nonliving things. **The Living Environment 4.4** The continuity of life is sustained through reproduction and development.

NYC: S2b. Molecular basis of heredity, such as, DNA, genes, chromosomes, and mutations. **S4a.** Big ideas and unifying concepts, such as order and organization; models, form, and function; change and constancy; and cause and effect. **S5f.** Works individually and in teams to collect and share information and ideas.

CT: 4. Units of Structure and Function. Students will understand that living things share common materials and structures which perform basic life functions.

NJ: 5.6: All students will gain an understanding of the structure, characteristics, and basic needs of organisms.

Time Required:

Two 50-minute class periods

Note: These activities can be spread out over several days if time allows. An effective option is to do the activities for the first or last 15 minutes of class, either as warm-up or review.

Assessment Criteria:

Because this lesson offers three mini-activities, there are several points along way to assess.

1. Do students have their own bodies labeled correctly? Walk around the classroom to ensure that they are correct.
2. Do students have their traced bodies labeled correctly? Are they using the terms correctly as they quiz each other?

3. Are students able to play the review game with ease, or are they struggling? Are they confident with their knowledge, or do they tend to look around to see what others are doing?

Recommended Lesson Plan Review Date:

Review Comments: