

Creativity & Connections in the Classroom

Reaching & Engaging more Students

Use creativity and the making of connections that are outside the box in class whenever possible. You and your students can use movement, drawing, recitation, singing, poetry, mnemonics and the creation or sharing of personal connections between related (even wildly related) elements or ideas. ‘Doing’ these things engages other and varied areas of the brain and could greatly assist students who do not favor auditory learning. It also requires that the student step out of sponge mode in which they simply look and listen, into being a participatory learner.

You can also assign creative projects and have students share them with others in class or on an on-line ‘blackboard’ type set up. Obviously, I believe my CD is a good place to start using the arts and varied connections to teach A&P, but there are so many more ways to creatively engage students.....

Suggestions that utilize art forms and/or challenge the student to make new connections:

- Write a play about a function using the appropriate characters (anatomical parts experiencing physiology & discussing physiology.) Perform in class with costumes. The song “The Ballad of Cap & Corona” is a song about fertilization that utilizes this concept from the 3rd person. The egg and sperm are anthropomorphized and followed on their paths toward formation of a zygote. (For the record the reference to ‘the creator’ in the lyrics is to the creator of the sperm, not of the universe.)
- Paint corresponding muscles on a T-shirt (or pair of leggings). Idea stolen with permission from: Prof. Amy Meredith, Washington State University.
- Pull out the flash cards and see who can make the most associations between 2 random cards. Anything goes!
- Decide what anatomic parts look like and try to associate their name with what it reminds you of.
- Create accompanying movement for pathways or processes.
- Write an advertisement for a body part / physiological pathway or process: film or present it live.
- Ascribe colors to body parts or processes and tell why you chose that color
- Make a board game that teaches a pathway
- Bring in pictures of artwork (paintings or sculptures) that show muscles and have the students label the picture.
- Name bones / hormones / cell types... after characters from movies or novels, share how you made your choices
- Draw a physiological pathway using symbols that make sense to you in place of the actual organs / tissues / molecules. Make a key for the process.
- Hand out cards with the steps of a pathway or participants in a process and have the students arrange themselves in the proper order, and in the appropriate shape if applicable

(you can also have them make themselves look like the part). This is fun with the process of urine production as there are many steps / anatomical destinations and a definite arrangement of parts that could be simulated. The renin-angiotensin system could also be “acted-out” in class with participant having to travel to the appropriate place to find / activate the next participant.

- Take some photographs of willing participants who offer good glimpses of muscles.
- Develop hand signals to represent things. A participant at the HAPS workshop in May suggested the victory sign made with both hands and then the v's pointed towards each other simulating the phospholipid bilayer. Her students made the sign at each other in the hallway. Solidarity!
- Write a limerick about parts or function
- Present a disease process from the point of view of a journalist reporting on a war
- Another participant in the workshop at HAPS suggested using Christmas songs as a melody and writing new lyrics. The twelve days of Christmas was mentioned as having great potential for substitution.

And if you would like to use my CD of songs that teach anatomy & physiology....

Suggestions for using “Groovin’ in the Hippocampus”

- Tell students to listen to the whole CD right away rather than wait for a particular topic to be addressed in class. (This will provide familiarity with the song – perhaps even memorization of lyrics to be used while studying the material, but of course this can also be done without the music.)
- Encourage students to both sing along with the CD and to sing the songs without the CD. (We are going to make the songs available for download without the vocal.)
- Encourage or assign students to write new verses that cover extra material within the topic. Alternately, have students replace lyrics with their own thoughts / connections. We did this in the workshop with “Give Me Some Bones” and participants came up with some great analogies for where the bones of the head are. (If the students write their own lyrics, they are even more likely to remember them.)
- Use the ‘notes’ space on the lyric sheets to add material you feel should be added or emphasized.
- Tell students to read the introductions to each song found at the top of the lyric sheet. These introductions include keys to learning tools embedded in the music. For example, in “Cranial Nerve Boogie” the song is divided into 2 sections, the first describing function of the cranial nerves and the second describing tests / assessments for cranial nerve function. In both sections, an instrument or sound that begins with the same letter as the cranial nerve is used. One can hear timpani emphasized for the trigeminal nerve and accordion emphasized for the abducens nerve.
- Have students come up with dance steps that reflect the physiology or anatomy of the song. For instance, a student might make a move for “Groovin’ on the Nephron Line”

that has his/her hands traveling down and back up to simulate filtrate passing through the Loop of Henle.

- Play appropriate songs during lab work
- Play the songs for a few minutes before class starts (it might even cut down on the time required to quiet the class – turning off the music will change the environment and signal that class is going to start.)
- Challenge students to update our lyric sheets with their own drawings or graphic representations. How would they have done them differently? Why? Students can also use drawings / graphic representations for other topics or categories of information. (There are graphic organizers on our website that some students might find useful in making connections and organizing information.)
- Consider whether you will allow humming in class during tests. You may have students wanting to sing the lyrics out loud in class.
- Lyric sheets are downloadable from the disk as pdf's, and are also available at our website for free download. You may distribute lyric sheets to students but please do not distribute copies of the song recordings themselves to students. Recordings can be purchased on-line as a CD, or in MP3 format, either as the entire 14-song recording or as individual songs. Best of all – ask your bookstore to carry the CD. Just email me @ lisa@bromfields.net for directions to give to the bookstore.

If you'd like to add your creative ideas to the list or have any comment or question please contact us by email or call (540) 869-0885.

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