Lesson Plan for Psychology One students (High School grades 10,11 and 12th)
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Student Outcomes:
- 3340.200 Describe the method of correlation and explain how it is used in psychology to analyze and interpret observations and research.
- 3340.204 Identify the physiological and psychological reactions to stress.
- 3340.700 BIG IDEA Pathway Strategies and Critical Thinking Skills
  (The following objectives are used throughout the Psychology I course)
- 3340.701 Summarize, categorize and analyze information from a variety of sources - including primary sources.
- 3340.703 Identify and assess cause and effect relationships throughout the study of psychology.

This lesson can be used in any of the following units of instruction for Psychology One: Methods of research (comparing case studies, validity, etc.), Sensation, Stress, Functions of parts of the Brain.

Key vocabulary: Amygdala, anterior cingulate, cortisol, physiological stress, and prefrontal cortex, cognitive learning, cerebral blood flow, stress, memory recall, MRI, EEG, EMG, NITRS,”shinrin-yoku”, psychotherapy, cognitive-behavior therapy, depression, and anxiety.

Anticipatory set/Journal/Discussion: When you think of “Nature” what comes to mind? How important is the role of nature in mental health? What are some areas that you believe it may impact? How many minutes do you think it takes for your body to reap the benefits of spending time in nature?

Intro reading: Whole group instruction –http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3353853/download PDF-- Vis Medicatrix naturae: does nature "minister to the mind"? By Alan C Logan and Eva M Selhub. Teacher lead intro reading with emphasis on key terms/ideas. Students will use two highlighters to color code specific key vocabulary terms (one that is connected to causes and the other effects)

Next, teacher assigned small groups - Jigsaw of the above articles (many research studies) The students will receive a graphic organizer for them to summarize categories of reading: specifically what was the researchers objective, methods (activity), causes and effects, and the connections.

If not using a hard copy the on line resource is: - http://www.yourbrainonnature.com- next click on the right hand corner - download PDF-- Vis Medicatrix naturae: does nature "minister to the mind"? by Alan C Logan and Eva M Selhub areas to read will be:
  Group 1 Nature, stress physiology and brain imaging (page 4-7)
  Group 2 Nature and cognition (8-13-emphasis on plants and placement)
Group 3 In vivo psychotherapy (nature based psychotherapy (13-14)  
Group 4 Nature, mood and mortality (14-17)  
Group 5 Nature, urban growth and environmental implications (17-19)  
Group 6 Future directions (19-21)

Reporting out of groups- all students will be taking notes in their graphic organizer

Teacher note- After group 2 reports out- cue up the stressful video clip and the nature clip for reinforcement of the researchers findings- discussion in class of student’s reactions-(video clips -8 minute total)

When all groups have reported out - discussion on surprises- general points – Specific discussion on if their prediction at the beginning of class was accurate as to the time it took to reap benefits from Nature (reminder the reading stated 20 minutes)

Next, Overview video of the Japanese research regarding Shinrin-Yoku Forest Therapy Japan  
Time allotment- opening remarks (what I want students to focus on during video and the viewing = 15 minutes)  
http://www.youtube.com/watch?v=U1Xonak-3XI&feature=player_embedded#at=22

Next select-http://www.ncbi.nlm.nih.gov/pmc/articles-  
In groups students will now see more detailed studies that correlate to research and nature- New graphic organizer in which students will: summarize the study (what was done), and list the parts of the brain effected, the outcome of the study and lastly your reflection- take on the study.  

Review of quotes that emphasis the importance of Nature:

FLW – in an autobiography Frank Lloyd Wright – (back ground he as a child in WI on his mothers family farm) - In these adventures alone-abroad in the wooded hills fetch the cows, he, barefoot, bareheaded urchin, was insatiable, curious a venturesome. So he learned to know the woods, from the trees above to the shrubs below and the grass beneath. And the millions of curious lives
living hidden in the surface of the ground, among roots, stems, and mold. Soon he was happy in such knowledge. A listening ear, seeing eye and sensitive touch had been naturally given to him; his spirit was now becoming familiar with this marvelous book-of-books. Nature-Experience, the only true reading. The book of Creation.

Open discussion on the importance of nature to FLW

Next, students will see real life application of using Nature in Architecture by viewing PBS “Stepping Back in Time” which shows Frank Lloyd Writes home in Oak Park – emphasizing Natural light and the tree growing out of the home. In addition – pictures depicting some of his famous works and their creation of nature-Wax Johnson Building (o exterior windows)- Lilly pads, Falling Water, Taliesin (also key bring the outside inside concept- with specifics such as art glass and ribbon windows)

After students have now seen concrete application of “nature” they will be assigned the following: Assessment – students will choose to apply their learning by:
1. Producing a drawing and writing of either a room in home or teachers classroom incorporating the “nature” elements they have learned about.

Requirements: drawing done to scale showing their incorporation of “nature” and two paragraph writing explaining your choices. Specifically, citations from the research you choose regarding why your placement and drawing was chosen. Lastly, a reflection- what benefits do you foresee in the future if most American’s took this practice and one concrete example of your own personal application.

Grading Rubric
http://pblchecklist.4teachers.org/make_link.php?id=392136

or see attachment