

PEAK/CALL TO COLLEGE script: most important: be cheery and responsive and have fun!

- 1) Greet the students and Introduction (be sure to emphasize that you are in college)**
 - a) After saying hello, go around and introduce yourselves, saying your name, your year in college, where you're from, and your major
 - b) Say you're all from Denison
 - c) Say you're going to share a little bit of what you learn in college
 - d) Remind them that it's important to read every day and do your homework
- 2) Now it's time for some fun....(do activities in any order; detailed lesson plans follow). Remember: try to work it out so that 3 of you lead the activity while the 4th person scores student engagement on the form. You can switch roles during the day or by week.**
 - a) Sock it to me
 - b) The nose knows
 - c) Mystery noises
 - d) Brain puzzle
 - e) Message transmission
 - f) Neuron chain tag
- 3) If finish early and there's still time....**
 - a) Repeat an activity, modifying slightly
 - b) Ask them what they most like to study
 - c) Ask them about their favorite book
 - d) Go around the room and just talk to students. JS says they love to talk about themselves
- 4) Give packet of pencils and erasers to teacher-find out if they want you to hand them out, or they can give them to the 2nd graders the next day**
- 5) Detailed lesson plans**
 - a) Lesson plan for Sock it to me
 - i) Put different small objects into each sock (we have a car, a ball, playdough, some have a candy, and a lego. Have other people try to guess what is inside of each sock by touching and feeling the object on the outside of the sock. If they can't guess what the object is, have them put their hand into the sock and feel it. By actually touching the object, you can get more information about the characteristics of the object. For example, its roughness and texture.
 - ii) What is the brain doing? Ask the students: what can you tell through your sense of touch? (size, shape). Can you guess what's in there? How does your brain make a good guess? Well, it puts together different clues, and then it matches up the clues with what your hands have touched and seen before. So, you have to use your senses and remember to make good guesses!
 - iii) Maybe pass a sock around and let everyone guess before passing the next one around? The ball is easiest, car vs. lego is harder.
 - b) Lesson plan for The nose knows
 - i) The nose is responsible for part of the flavor of food. To demonstrate this, blindfold a person and have that person hold their nose. A test food most kids like is the jelly bean. Buy several flavors of jelly beans and have everyone try to guess the flavor (with and without the use of their nose). The advantage of using jelly beans is that they have the same texture. Therefore, the blindfolded person will not be able to use touch information to distinguish the different items.
 - ii) When the brain figures out what we taste, it puts together lots of clues-information from the taste buds tell it how sweet, sour, salty, bitter, or meaty something tastes. Our sense of

smell adds lots of flavor information! Can you think of other clues? (like, how do you tell chocolate icecream from a chocolate pudding? (temp)From chocolate cake? (texture)

c) Lesson plan for Mystery noises

Youtube links:

<http://www.youtube.com/watch?v=U1ciYL0hc00>

<http://www.youtube.com/watch?v=D8hvcHtKFGQ&feature=related>

http://www.youtube.com/watch?v=K_EsxukdNXM

<http://www.youtube.com/watch?v=1pSyYhRYeIM>

<http://www.youtube.com/watch?v=8uzQuHsqTXo>

<http://www.youtube.com/watch?v=l70yarlcd-l>-- START AT 15 SECONDS!

- i) If have laptop, play noises (car alarm, popcorn, cows mooing, etc)
- ii) If no laptop, drop coin, shake coins, scrape chalk on blackboard, rip paper, staple something, clap hands, clap chalkboard erasers, tap a pencil or pen on a desk, close a book, crumple up paper or foil, stomp on the floor, bounce a ball
- iii) This could easily be extended-made short or long as needed-could have students make noises for each other to guess
- iv) What's happening? Once again, your brain is going through a list of experiences to find a match
- v) Other things to point out: can you tell where the sound is coming from? Yes- because the sound reaches one ear (the closer ear) a little more quickly. Note- sounds travels 5x faster underwater, so we have a harder time knowing where sounds are coming from underwater

d) Lesson plan for Brain puzzle(hard to know how long this will take...)

- i) Handout the folders
- ii) Help the students make the puzzles
- iii) Once the kids can see all the parts, talk about what the brain parts do:
 - (1) Cortex in general: your 5 senses, memory, learning, thoughts, decisions
 - (2) Prefrontal lobe-decisions, planning, complex thinking
 - (3) Frontal lobe-thinking and memory, ability to concentrate, controlling your body, speech
 - (4) Parietal lobe-helps you feel, see, hear, taste, smell, and know where your body is so that you move they way you want
 - (5) Occipital lobe-helps you see
 - (6) Temporal lobe-helps you hear, understand words, speak, and remember language and memory
 - (7) Medulla: takes care of breathing and other things that keep your body working, without you even thinking about it
 - (8) Cerebellum-coordinates movement so you can walk, run, dance, swim
- iv) If you do this quickly, you could ask them: what part of the brain helps you see? Helps you run?, or you could have them think of activities, and you could talk about where it might happen in the brain.

e) Lesson Plan for Message Transmission

-Start by asking the children to raise their hands as fast as they can if they know....

(Their teachers name?)

-Ask the children: How do you know to raise your hand?

Goes through BRAIN! Your ears hear the question (What is your teacher's name?) and register the answer and sends the message (by firing neurons across the synapses) to put your hand in the air

-Draw an Example of a Firing Neuron on the Board

EXPLAIN: dendrites to cell body to axon...until reaches destination

(Analogy: Static shock after dragging your feet on the ground wearing socks and then touching a door knob and the static shock that transfers from your fingertip to the door handle without touching)

FUN FACT: neurons fire faster than the speed of light! And WE have more than 100 Billion neurons in our bodies!

Everyone can draw their own Axon/Cell body/Dendrite and label them
(TIME PERMITTING)

Play the message transmission game: Children sit in a circle with their right hand on their peers left foot- a Denisonian times how long it takes for the message to travel all the way around the circle

Ask Students: foot vs. shoulder which message will travel faster?

Do this again but have the students put their right hand on their peers left shoulder--time this (it should take less time because the message transmission is shorter from shoulder to brain to hand)

Explain- the shoulder is faster because less distance to travel...

Lastly make it a competition--

(Check numbers in class- possibly boys versus girls)

Students line up in two lines and pass toy brain to each other and see who passes it faster--

f) Lesson plan for Neuron chain tag

-hold up a paper chain if available and ask, "What holds the links of the chain together?"

-Explain how a neuron chain operates and how neurons are connected to each other when sending a signal. (basic parts: dendrite, synapse, axon)

-The teacher will then explain how Neuron Chain Tag is played. The player who is it represents the first neuron. The first neuron must tag other students, forming a chain of neurons.

-The teacher will explain where the boundaries are and where the students can be tagged.

-The game is a variation of normal "it" tag. When the person who is "it" tags another player, they form a chain by holding hands. The chain grows until the last person is tagged, at which point the game is over.

-The teacher can ask/re-explain what a neuron chain is and how it works.

GOOD LUCK! HAVE FUN!

Notes: