**Lobes and neurons!**

**PROJECT:** Brain lobe cookies, pipe cleaner neurons

**ESSENTIAL QUESTION:** What is my brain made of, and what does it do? (Answer: Neurons grouped into lobes, and it does everything!)

**GOALS:**

* Know the five lobes and their main functions
* Be able to say which lobe contributes to randomly suggested activities (e.g. brushing your teeth)
* Know that neurons are brain cells that communicate with each other
* Know the six parts of a neuron and what they do
* Know that neurons add up to make lobes

**PREPARATION:**

* Bake cookies
* Make scientists’ logs
* Make brain myths/facts calendar
* Print neuron and lobe worksheets
* Make at least two pipe cleaner neurons before

**MATERIALS:**

* Pipe cleaners galore
* cookies
* frosting & sprinkles
* Neuron worksheets (<http://nwnoggin.org/wp-content/uploads/2015/03/NWNoggin-Neuron-Worksheet.jpeg>)
* Lobe worksheets (<http://nwnoggin.org/wp-content/uploads/2015/05/The-Brain-Game.pdf>)
* Scientists’ logs
* pencils
* decorating tools
* wax paper to work on
* clean up supplies
* Brain myths advent calendar

**SUBJECT CONNECTIONS:**

Everything - it’s the foundation for the rest of the course.

**LEAD IN:**

* Introductions: Who are we? Why are we here? Who are they? Pass out scientists’ logs. (15 minutes)
* Brain myths/facts: What do they know about the brain? Ask several myths/facts - probably five or six, but could be more or less depending on how they’re responding. (10 minutes)

**PROCEDURES:**

* Lobe talk: Talk about each lobe on worksheet, have them fill it out as we go. (10 minutes)
* Ask them to name activities and say what lobes would be involved in those activities. (5 minutes)
* Decorate cookies, talk with them one-on-one about lobes and what they do, how they work together, etc. I like to ask what their favorite thing to do is, then talk about what part of the brain is involved. (20 minutes)
* Transition time/clean up (5 minutes)
* Neuron talk: Talk about parts of the neuron as listed on worksheet, have them fill it out as they go. Emphasize that neurons talk to each other where the dendrites and axon terminals get close to each other. (15 minutes)
* Pipe cleaner neurons, talk with them one-on-one about neurons, how neurons make up lobes, and how neurons can look very different. (15 minutes at least - lots of wiggle room here)

**CLOSURE:**

* Scientist’s log: Have them write down what they learned that day, what their favorite thing was, and any questions they have. Collect those and pipe cleaner neurons. (15 minutes)

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