**Background Information:**

Your brain can be seen as the boss of your body. It controls almost everything you do! Although the brain as a whole has to work together to perform various functions, the brain is composed of different regions, or so-called lobes, that carry out the majority of certain functions. The frontal lobe helps us plan and organize. The parietal lobe allows us to feel things like heat, pressure, pain and pressure. The occipital lobe is specialized for vision and the temporal lobe is specialized for hearing and memory. The cerebellum is important for balance. All of these regions rest on an important structure called the medulla oblongata, which is one of the most important structures as it helps you stay alive! It controls your heartbeat, swallowing and breathing. This structure connects your brain to the rest of your body.

When you think of the brain, you probably think of neurons. Neurons are the building blocks of the brain and have the ability to receive and send messages to other neurons, muscles and tissues throughout the body. This allows you to think, feel, move, and comprehend the world around you. If it were not for neurons, our bodies would unable to carry out all of the complex functions needed to keep us alive. Some important parts of a neuron includes the cell body or nucleus which carries genes, dendrites that pick up electrical signals from other neurons and carries those signals to the cell body, an axon that carries electrical signals away from the cell body towards other neurons and an axon terminal where the signals get passed to the next neuron.

**Learning outcome:**

Students will learn about some important structures found in the human body’s nervous system along with their functions. Each student has a choice to create a play dough model of the major lobes of the brain or a model of a neuron. The key structures within the two models will be provided on separate diagrams that students can refer to. Throughout this process, it is important to ask students what they know about these structures and then give them some basic background information.

**Activity budget:** Approximately $30.00 for Play dough color pack.

**Supply restocking information:**

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| **Materials Needed** | **Source** | **Special Instructions** |
| Play dough (various colors) | Michaels Arts & Crafts | Non-consumable |
| Images of structures | Let’s Talk Science | Non-consumable |

**References**: Kandel et al, 5th edition Principles of Neural science