

Clay Anatomy of the Nervous System – Part 1 The Brain

Materials copyrighted and provided by
Starla's Creative Teaching Tips ©

Hands-On Body Systems
by Starla A. Ewan

Presentation arranged by
Lydia Williams



Building the Nervous System!

Objectives: Students will be able to:

- Build and identify the major components of the Brain, Spinal Cord, and a Spinal Nerve.
- Demonstrate innervations into a muscle.
- Compare and contrast the innervations of muscles for gross vs. fine motor movement.
- Build and identify the motor and sensory pathways leaving and entering the spinal cord.
- Build three major spinal nerve plexus and their nerve





Part 1 – Central Nervous System

A) Building the Brain

1. Frontal Lobe: Starting with a ball of terra cotta clay about the size of peanut M & M TM, roll the ball into a tube and then into a strand about the diameter of linguini.

The frontal lobe controls skeletal muscle which is why we are using the terra cotta color.

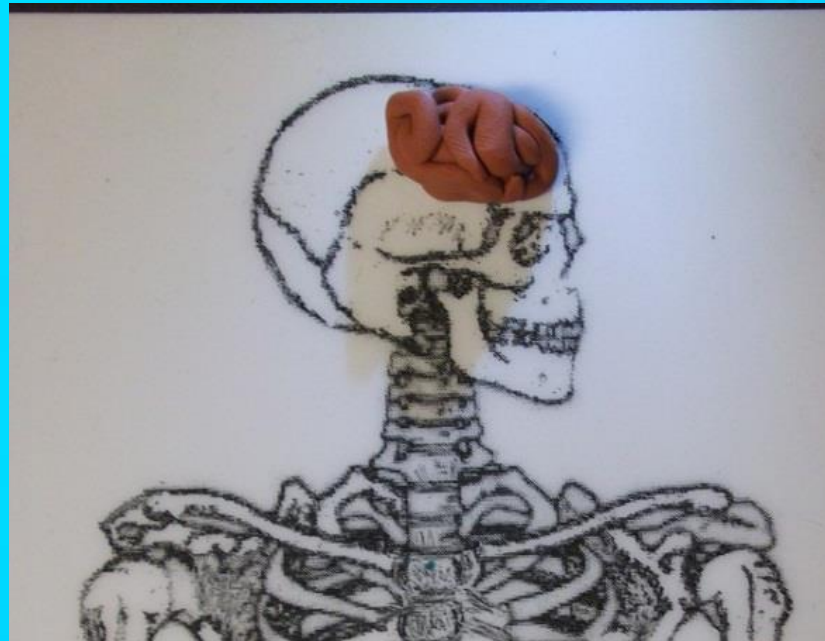
Hold the strand above the palm of the other hand. Let the strand fall into the palm and form a messy clump.



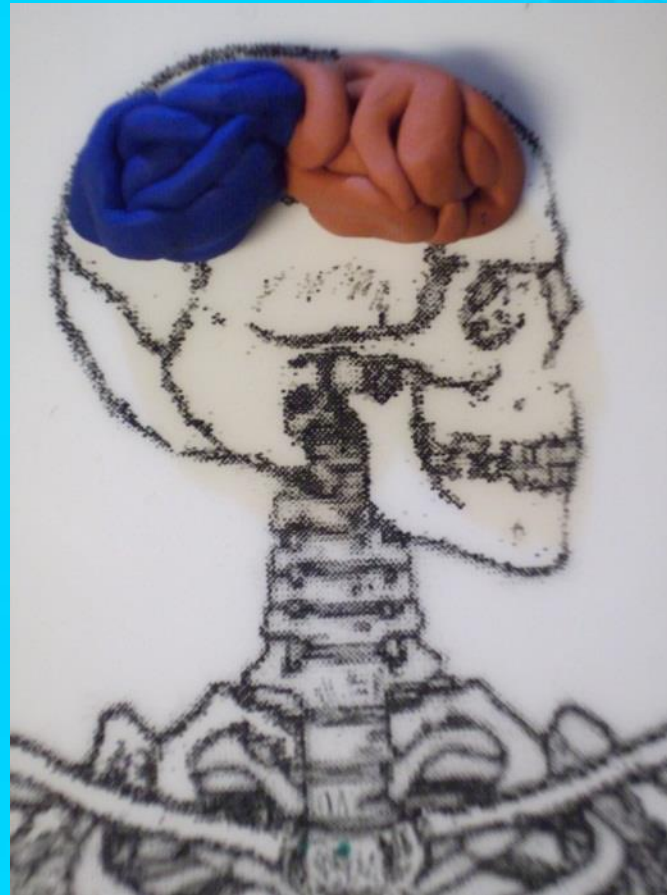
Using the other hand, gently roll the clump into a ball. (Do not smooth out the gyrus...or this brain will lose its intelligence.)



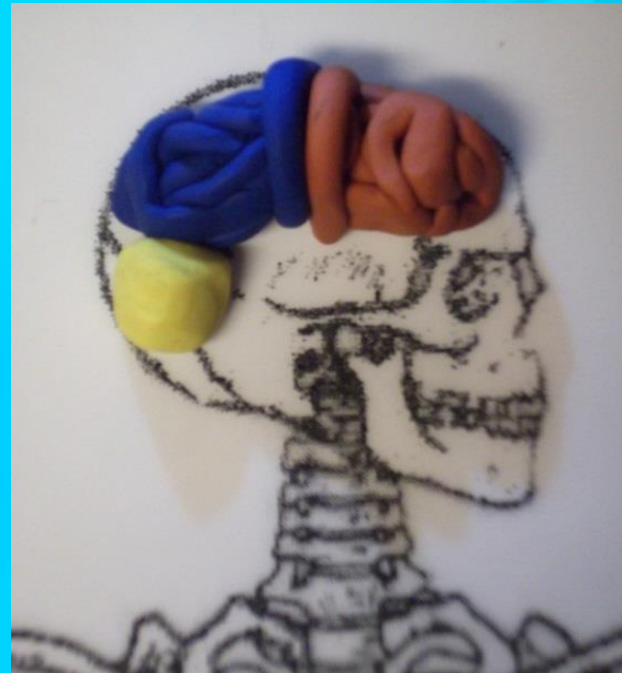
Place the frontal lobe onto the flat board.



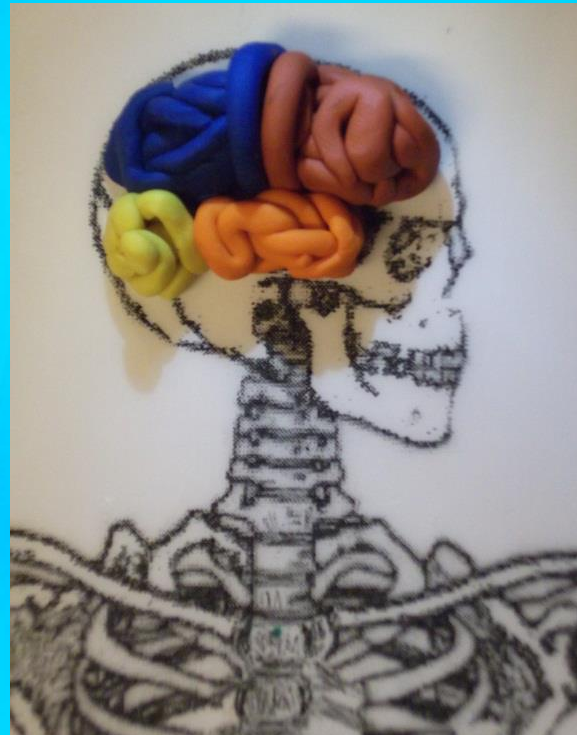
2. Parietal Lobe: Follow the same steps in making the Parietal lobe. (We will use blue clay for this lobe, because blue is a sensitive color and the Parietal lobe is all sensory.) Place the Parietal lobe behind the Frontal lobe.



3. Occipital Lobe: Using yellow clay, form a ball about the size of a regular M & M™ and place it into the spot where the occipital lobe would go. Reduce or add clay to make the size right. Once the right size has been made, roll out the clay into a strand and fold it up as we did with the Parietal & Frontal lobes. Place the occipital lobe under the Parietal lobe.



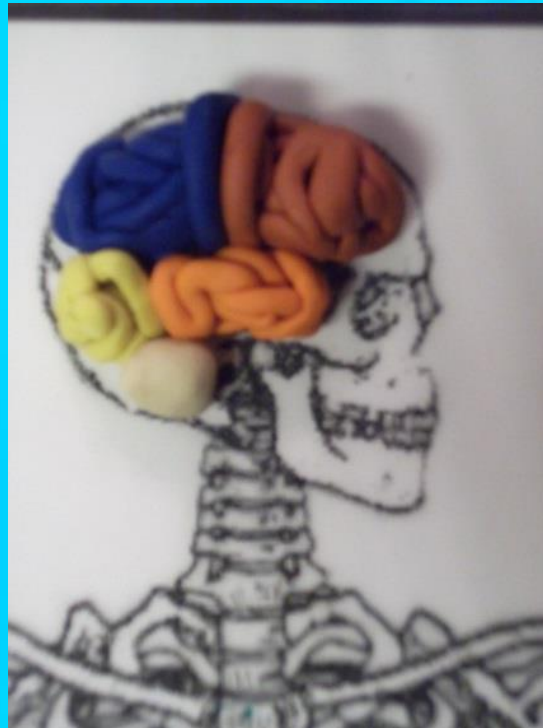
4. Temporal lobe: Using orange clay about the size of a peanut M & M™, shape and fit the temporal lobe. This lobe will be oval shaped and placed under the parietal lobe and half-way under the frontal lobe. Make the clay into a strand and fold it to form the temporal lobe.



*Cerebrum finished!
The colored lobes
of the brain
represent the
cerebrum of the
brain or the
'Somatic' brain
(voluntary).*

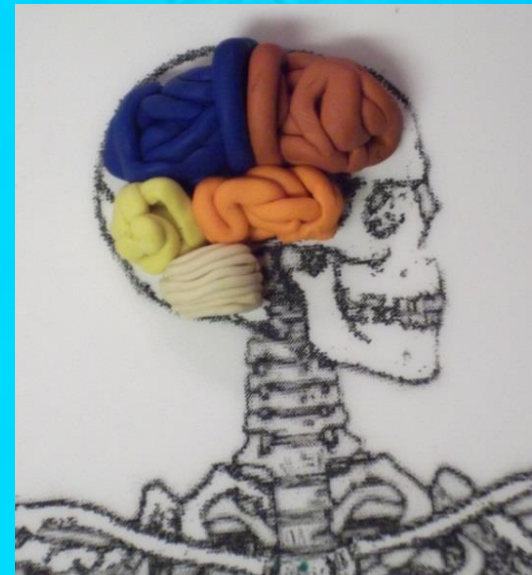
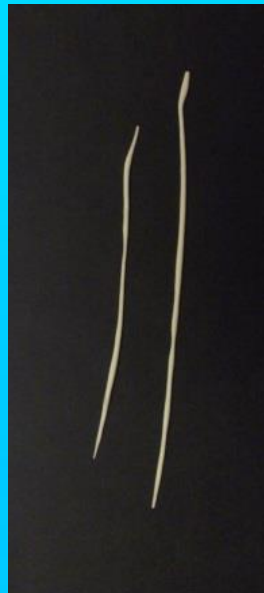
4. Cerebellum: We will use ivory clay to represent the involuntary parts of the brain, beginning with the cerebellum.

- Form a ball of clay about the size of a regular M & M™, and place it under the occipital lobe & part of the temporal lobe.



This part of the brain will be made differently than the cerebrum lobes. Roll out very thin (angel hair pasta) strand of ivory clay.

- Place the strands parallel to each other on the ball of ivory clay that the students formed for the cerebellum. (You can remove the ball of clay and place the strands on them if it is easier for them.)



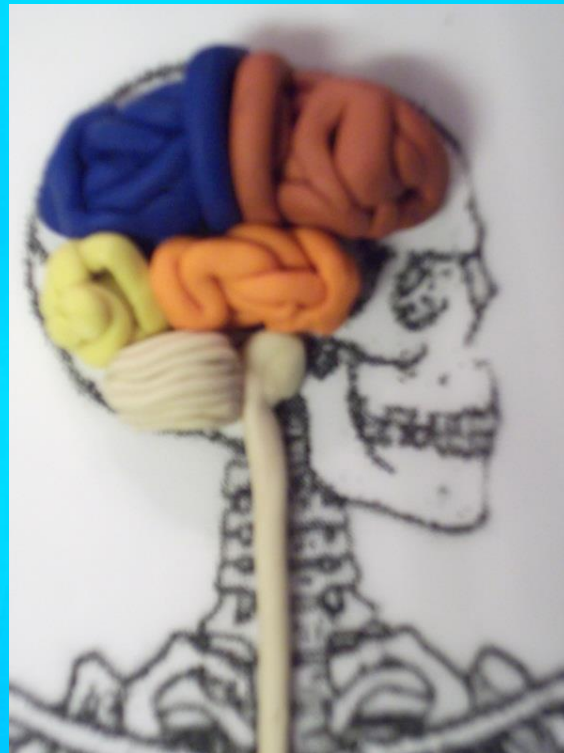
5. Brain stem: Pons and Medulla Oblongata are formed by making a thick strand of ivory clay about an inch long. Hook the top of the strand like a candy cane:



Press the hook into the strand then smooth out the line in the clay. This bubble of clay will be the 'poochy' pons.



Place the 'poochy' pons towards the face or mouth of the diagram and attach to the front of the cerebellum.



Cut the strand at C2 to form the end of the Brain Stem. The strand of clay from the bottom of the pons to C2 is the Medulla Oblongata.

