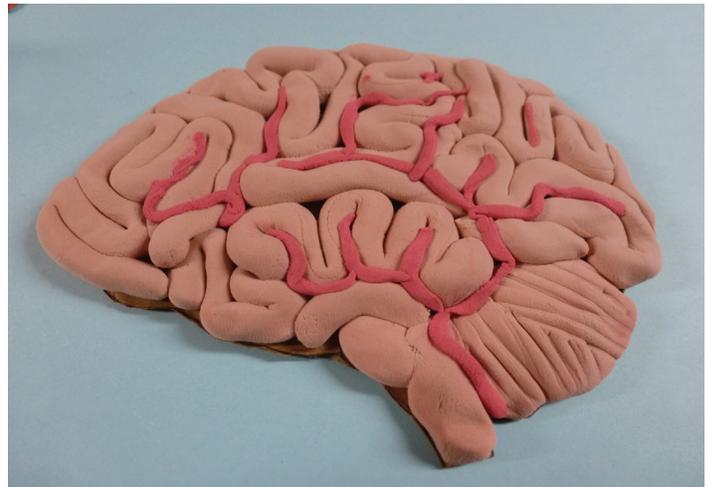
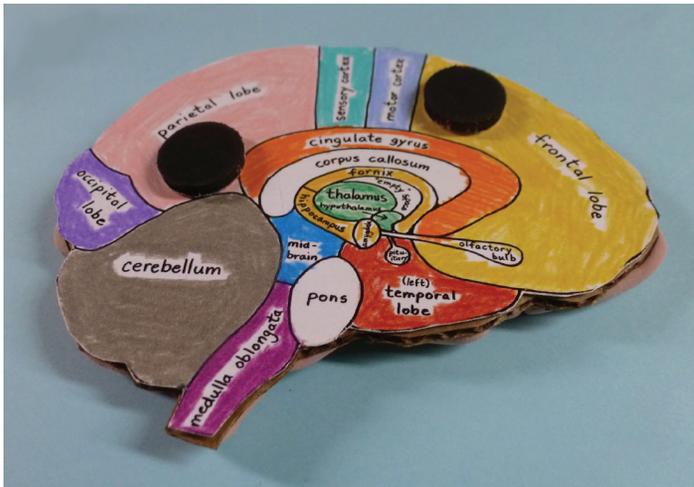


# BRAIN MODEL REFRIGERATOR MAGNET



**Purpose of project:** To reinforce learning about brain anatomy. (Vocab you might want to emphasize as you sculpt: gyrus (bump), sulcus (crack between bumps), fissure (cracks between lobes), cerebrum, cerebellum, brain stem, temporal lobe)

**Age level:** any age

**Time required:** 30-40 minutes if you do it all in one session. (You can do this in two sessions, doing the front one day and the back another. Allow 20 minutes for each session if working with younger kids.)

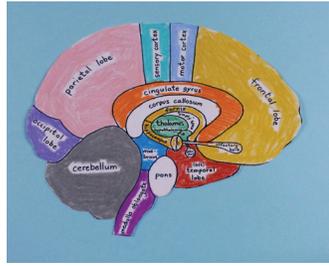
## **Materials you will need:**

- Model Magic® sculpting dough in “bisque” or “terra cotta” color. One package of Model Magic® will be enough for 3-4 students, depending on how thickly the dough is applied. (The reason I use Model Magic® is because it is so incredibly light. A cheaper, but heavier dough will be too heavy for small magnets to hold up.)
- Model Magic® in red (but only if you have a group and it is worth purchasing a whole packet) You only need a very small amount of red, so don't go buying a whole packet for one or two students. You can always use a red Sharpie marker to color a little bit of your brain-color dough. Or maybe substitute red Play Doh.
- a piece of foamcore or corrugated cardboard (if you don't have either, use cereal box cardboard)
- a copy of the pattern page printed onto card stock
- colored pencils
- adhesive-backed (peel and stick) “button” magnets (at least 1/2” diameter)
- at least one picture from the Internet (downloaded and printed unless you can view the screen while sculpting), that shows exterior of brain
- something that will press thin lines into the dough (such as a table knife that is not sharp, or a wooden coffee stir stick, or even the edge of an index card)

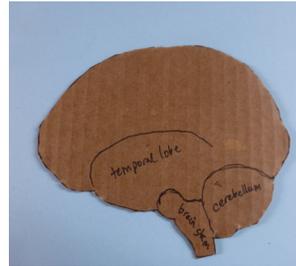
**NOTE:** If you can only get Model Magic® in white or brown, you can go ahead and use it and just paint it when dry. (NOTE: Model Magic® takes several days to dry. A week to be completely safe.) Use a peach-colored acrylic paint (sold in bottles for less than a dollar at any craft store or craft department). The paint dries quickly but can be hurried even more if you blow dry it with a hairdryer. With a hairdryer it will dry in about 5 minutes. (The hair dryer trick won't work on the Model Magic®. It will still take a few days to dry.)



(1)



(3)



(4)



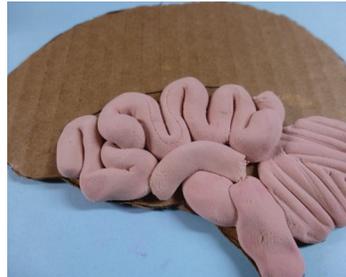
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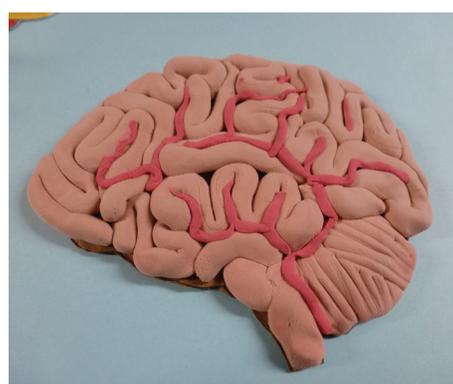
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(8)



(10)



(11)



(12)

### **Directions:**

- 1) Cut out the paper pattern. Put the pattern face down onto foamcore or corrugated cardboard and trace. (Brown cardboard shown here so the pattern can be seen, but I prefer white foamcore.)
- 2) If using foamcore, cut with X-Acto knife (adult job!). (I cut foamcore with my scroll saw.) If you don't have an sharp knife, a good pair of scissors might work. If using cardboard, can cut with scissors.
- 3) Color the pattern page (showing inside brain parts) with colored pencils or crayons. (If working in a group, have them write their name or initials somewhere on this diagram, in very small letters.)
- 4) Before gluing the pattern page onto the foamcore/cardboard, use it as a guideline to draw in roughly where the brain stem and cerebellum will go. You might also want to add a line for the temporal lobe.
- 5) Glue the pattern page to the back of the foamcore (cardboard) you just cut out.
- 6) Turn back to the blank side and begin your sculpting. Put in the brain stem first. (You can roll an oval for the pons if you want to.)
- 7) Put some dough on the cerebellum area. Use the table knife or craft stick to put texture lines into the cerebellum.
- 8) Roll long "snakes" to use for the cerebrum. Make the "snakes" a little smaller than a small child's finger. Form the temporal lobe area first,
- 9) then do the top of the cerebrum. Every person's brain is unique, so the students don't have to make theirs look just like the picture. They can make the squiggles however they want to.
- 10) OPTIONAL: If you need to color a tiny bit of dough for the vessels, you can use a Sharpie to add color.
- 11) Make very, very thin "snakes" and apply tiny blood vessels to the cerebrum. (Talk about why blood is so important to the brain, bringing oxygen and nutrients and carrying away wastes.)
- 12) Stick the magnets to the back very carefully, without crushing the dough on the front. Try not to cover words.
- 13) Let project dry for several days.

