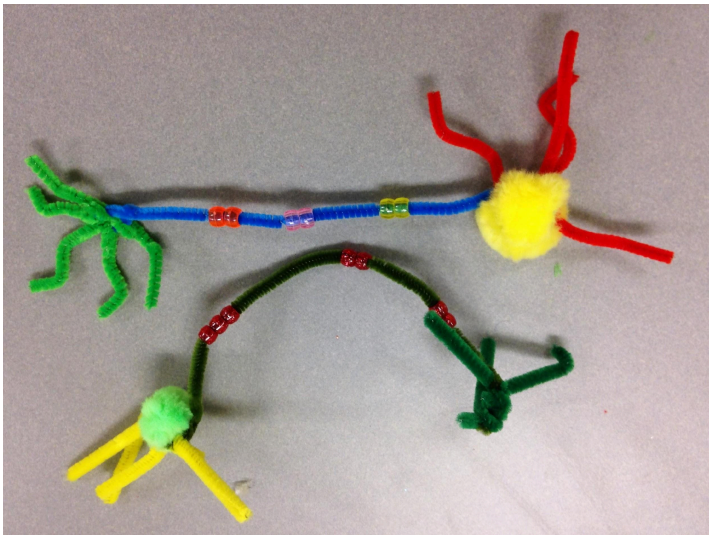
“Do you want to build a neuron?”
Neuron Craft Activity

You have over 100 million (that’s a lot) cells in your body that talk to each other. These are called neurons, the most basic unit in your nervous system, a network of neurons that lets us do pretty much everything: move, think, sense, etc.

So what do these neurons look like? And how do they talk to each other?

Let’s find out!



Some things to keep in mind:

Since neurons are meant to chit chat with each other, they need the parts to do so:

- A part to receive information
- A part to process and respond to that input
- A part to transmit that information (output)

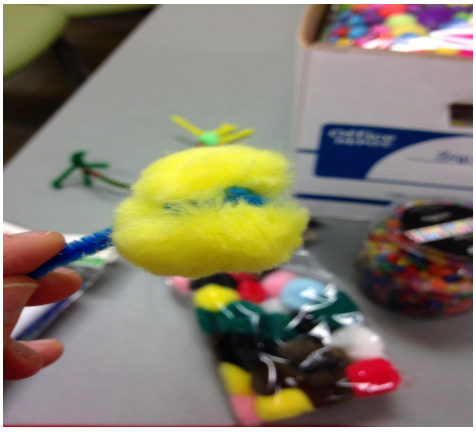
Try to see if you can guess which parts of the neuron do what as you make your own!

What you’ll need:

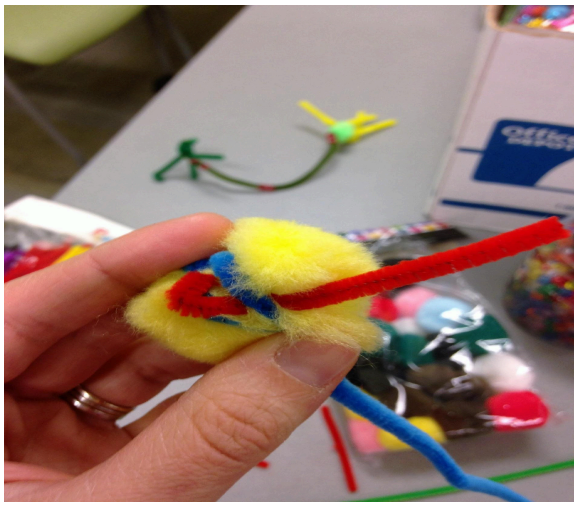
- Large pom-pom balls (2”) (1/student)
- Pipe cleaners in assorted colors (3/student)
- Large-holed beads (4-6/student)
- Scissors
- (Optional) Print out of neuron diagram with labeled parts
- (Optional) Pre-made neuron as an example

How to Build a Neuron:

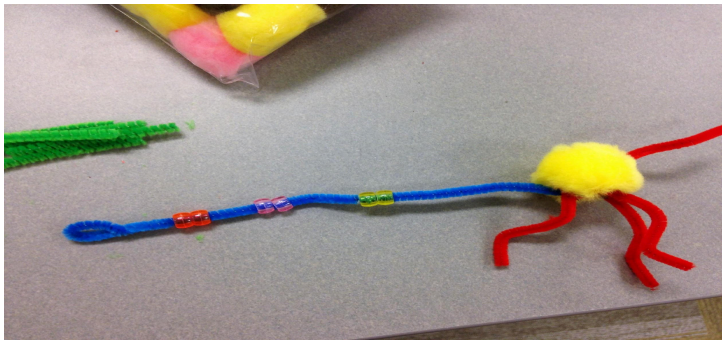
1. Start with a pom-pom ball (cell body) and a long pipe cleaner (axon).
2. Wrap one end of the pipe cleaner around the pom ball tightly.

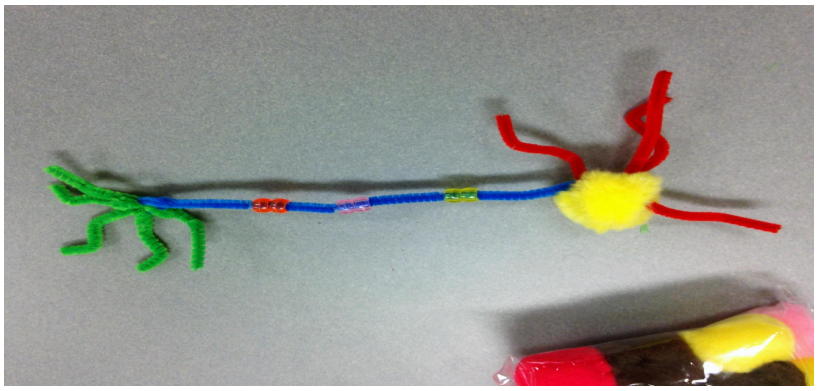


3. Cut a second pipe cleaner into 4-5 pieces.
4. Thread these smaller pieces under the portion of the long pipe cleaner wrapped around the pom ball. (This creates the dendrites)



5. Thread 4-6 beads onto the long pipe cleaner. (This is the myelin)
6. Loop the end of the long pipe cleaner. This prevents the beads from falling off and gives a place to attach the axon terminal.
7. Cut a third pipe cleaner into 4-5 pieces and attach them to the end of the axon as you did with the dendrite pieces.





Congratulations! You made your very own neuron!

Now take a look at the diagram below to see what each of your neuron's components look like when you have two neurons in a row:

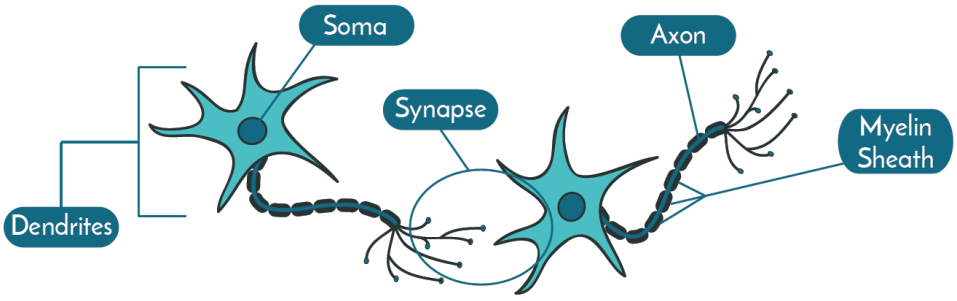


image provided from the Dana Foundation

Can you guess the function for each of the terms above? Ask an NCOG volunteer!

Now you have an extra neuron to take home and remind you of all the cool things your brain and body can do!