



Pipe Cleaner Neurons

Your brain, like all body tissues, is made of cells. But brain cells (called *neurons*) look very different from skin, or liver cells - they are remarkably diverse in shape and size.

How something is shaped and structured determines what it can do - and your neurons can do many things!

Most neurons do have a few standard parts that you can create by bending, twisting and linking up pipe cleaners...

***Cell body, or soma:* typically a spherical structure (though sometimes it's shaped like a 3D pyramid!). The cell body is home to the *nucleus*, which contains *DNA* - the genetic instructions for building the entire neuron!**

***Dendrites:* the input end of neurons, with multiple, cell membrane-bound branches where other neurons deliver *excitatory* (fire!) and *inhibitory* (stop!) messages, by releasing chemicals called *neurotransmitters*...**

***Axon:* output from neurons (in the form of electric current!) travels away from the cell body along this wire like projection, which can be short - or surprisingly long. Some wires travel from your toes all the way to the base of your brain - that's one long neuron!**

Learn about other parts of neurons you can craft: the *nucleus* in the cell body, for example, filled with twisted pipe cleaner DNA, or *myelin*, the supportive insulation for the axon wires that makes electric messages travel faster...