

# Building Realistic Neurons

Draw a picture of the commonly used model of a neuron cell. Label the **Cell Body (Soma)**, the **Axon**, and the **Dendrites**. This is a **model** of a neuron, but not what neurons actually look like!

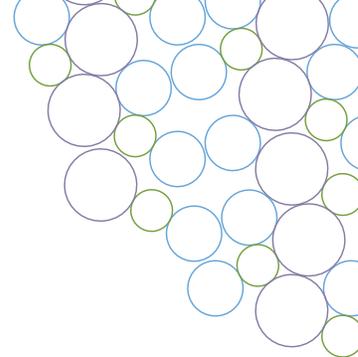
1. What is the function of the cell body?

2. What is the function of the axon? Why do you think it has the shape that it does in the model?

3. What is the function of the dendrites? Why do you think they have the shapes that they do?

**See - Think - Wonder:** Now let's take a look at realistic neurons that our scientists interact with! Take a moment to write down everything you see, everything you think about the parts of this neuron, and everything you still have questions or wonder about.

SEE	THINK	WONDER



## Let's build!

Follow the instructions on these slides to work in teams to build realistic neurons

### Materials needed

#### Excitatory - build this one first!

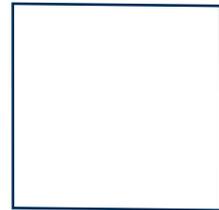
1 black pipe cleaner  
2 red pipe cleaners  
3 blue pipe cleaners  
Scissors

#### Inhibitory - build this one second!

1 black pipe cleaner  
1 blue pipe cleaner  
3 red pipe cleaners  
Scissors



Show your teacher and get a check mark here when you finish:



## Extension: Connecting pipe cleaner neurons to make a network

Get into groups of two or three and connect your neurons together by twisting the branches around each other pipe cleaners. The AXON of one neuron connects to the DENDRITE of another cell. A group of connected neurons is called a NETWORK. How many connections can you make? Make a network with the whole class. How many connections can you make now?