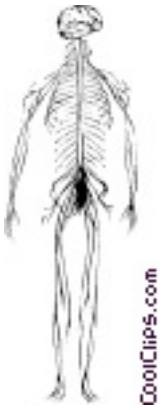
Cell Biology Name:

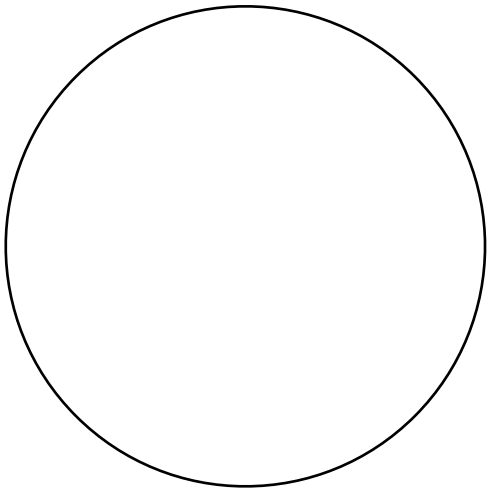
Nerve Cells Period:

Use the slide strip #10 and a plastic microscope for this. Use colored pencils to make a drawing in the circle of what you see. Then, answer the questions using what you observed and information from the paragraph below.



Circle #7 shows nerve cells found in the tissue of your spinal cord. Nerve cells are specialized cells that carry electrical messages from one part of your body to another. Those in your spine act like wires, carrying information (a stimulus) from your environment through your body to your brain, so your brain can decide how to respond. Your brain then sends out another electrical message that tells your body what to do in response to the stimulus. The main part of the nerve cell (called the cell body) is dark and is labeled "A". The ring in the center of the cell body is the nucleus. The things that look like very thin lines are long extensions (called axons) that start at the cell body and go way beyond the edges of the image you see here. Some nerve cells (going from your lower back to your toes) have axons about 3 feet long! Other nerve cells in your brain are used for keeping and storing information, which is why you can learn and have memory. Just like the other cells in your body, nerve cells need nutrients and oxygen. The thicker line labeled "B" is a small blood vessel (tube) that gives these things to the nerve cells.

When you draw, do NOT draw the letters and lines you see on the photo!



1. What is tissue made of? *[hint: Chapter 4, Section 3]* _____

2. What is the specialized job of a nerve cell in your spine? _____

   _____

3. What is the specialized job of a nerve cell in your brain? _____

   _____

4. Where are the longest nerve cells in your body found? _____

5. Write the terms **cell body** ☐, **nucleus** ☐, **axon** ☐, and **blood vessel** ☐ outside of the circle, and draw a line from the term to part of your drawing so it touches that part in the drawing.