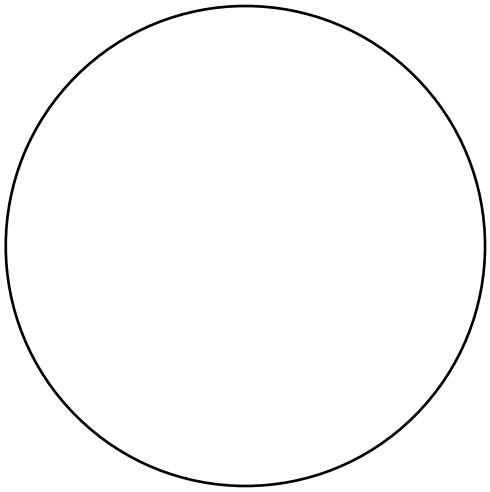
Structure and Function in Living Systems Name:

Voluntary Muscle 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 #5 shows cells found in voluntary muscle. The cells are so long, you cannot see the ends of them in the view. When you draw, do NOT draw the letters and lines you see on the photo!



1. Muscles are made of cells working together. What does this make muscles? *[p.467]*

   Muscles are... _____

2. What would be the best way to describe the shape of these cells?

   _____

3. These muscles help you to move. What kind of muscle are they? *[p.476]* _____

4. Would the muscles shown be voluntary or involuntary? *[p.476]* _____

5. Where does this kind of muscle get its instructions from? *[p.477]* _____

6. What do muscle cells do once they get the message to move? *[p.477]*

   _____

7. The letter A points to an organelle in the center of one of the muscle cells. This organelle controls what goes on in the cell. What is the name of this organelle? *[Chapter 4, Section 2]*

   _____

8. Imagine that this muscle is in your arm. Do muscles in your body work by themselves? *[p.477]*

   Muscles in my body ....

9. Fill in the blanks in the sentence below. *[p.477]*

   Because muscles work in pairs, one muscle is the _____ and the other muscle is the _____ .

10. Write the term **nucleus** outside of the circle, and draw a line from the term to part of your drawing so it touches that part in the drawing.