1. You have over 600 muscles in your body! Begin by changing the stylus mode to Dissect and explore the muscular system. Record your observations.

2. First, estimate how many muscles are in your arm. Then show labels and use the Dissect mode on your stylus to investigate further. Were there more muscles than you expected or fewer?

3. Muscle tissue in your arm is called skeletal muscle. What do you notice about the shape of skeletal muscle tissue? Where else in the body do you think you can find skeletal muscles?

4. Muscles are attached to bones by stringy white tissues called tendons. Pull apart the muscle more and look for tendons. Find at least three tendons and use Notes to label them. Take a photo of your labeled tendons.
5. Your skeletal muscles work with your bones to move your body. Skeletal muscles, such as your biceps and triceps, work in pairs. Bend and extend your arm at your elbow and feel your biceps and triceps with your other hand. Describe what your muscles are doing.

6. Skeletal muscles are attached to your bones and contract and relax to move your body. Examine the muscles in the arm. In this model the arm is straight. Which muscles are contracting? Which muscles are relaxing?

7. There are muscle pairs in other parts of your body, too! Explore this model of the leg. Can you find any muscles that seem to be opposite each other?

8. Muscles you consciously control are called voluntary muscles. Muscles you cannot control are called involuntary muscles. Do you think skeletal muscles are voluntary or involuntary? Explain your reasoning.

9. Observe the muscles of the torso. Use the Dissect mode on your stylus to remove all the skeletal muscles. How does the muscle around the heart look different than skeletal muscle?
10. Over the course of your lifetime your heart does more than any other muscle. It beats more than 3 billion times! A special type of muscle called cardiac muscle is found only in your heart. Do you think cardiac muscle is voluntary or involuntary? Explain your reasoning.

11. A third type of muscle, called smooth muscle, is found in hollow organs. Smooth muscle helps to move materials like food, water, and blood through your body. Take a closer look at the stomach, the esophagus, and the intestines. Do you think smooth muscle is voluntary or involuntary? Explain your reasoning.

12. Compare these examples of smooth muscle, cardiac muscle, and skeletal muscle. Use the Cutting Plane to get a better view inside the organs. Sketch each muscle on your worksheet. What are the differences between the muscle tissue types?

13. Your lungs do not have any muscles in them, yet your lungs inflate and deflate every time you breathe. How do you think this happens? Use the Dissect mode on your stylus to investigate.

14. A muscle called the diaphragm contracts and relaxes, causing your lungs to inflate and deflate. Think about the differences among skeletal, smooth, and cardiac muscle. What type of muscle do you think the diaphragm is? Explain your reasoning. Refer to your worksheet and compare your sketches of different muscle tissues.