Cell Adventures

Congratulations! Because you have become an expert on cells, you have been chosen to go on a scientific adventure. You will be shrunk down to a microscopic size. Then you will enter a microscopic submarine, which will be put into a drop of water near an animal cell. Your mission is to bring back a piece of DNA from the cell for important research. Good luck!

1. A thick barrier separates you from the inside of the cell. Your submarine's laser will cut through the barrier if you enter its name into your computer. What is the name of the barrier? _____

2. Your submarine is running out of fuel already. Fortunately, the boat is designed to run on protein. Which organelle can make more protein for the submarine?

   _____

3. You obtain the protein you need and continue your journey. Soon a large organelle rushes toward you. You steer out of its way, but the submarine is becoming hot and is in danger of melting. Some sugar inside the organelle is being turned into heat energy, which is threatening your submarine. If you can identify this organelle, your boat's computer will put up a heat shield as protection. Name the organelle, and explain how you know its identity. _____

   _____

4. Just in time, your computer raises the heat shield to protect you from the heat energy. To avoid other dangers, you decide to find an organelle you can travel through to get the submarine near the center of the cell. Which organelle should you look for?

   _____

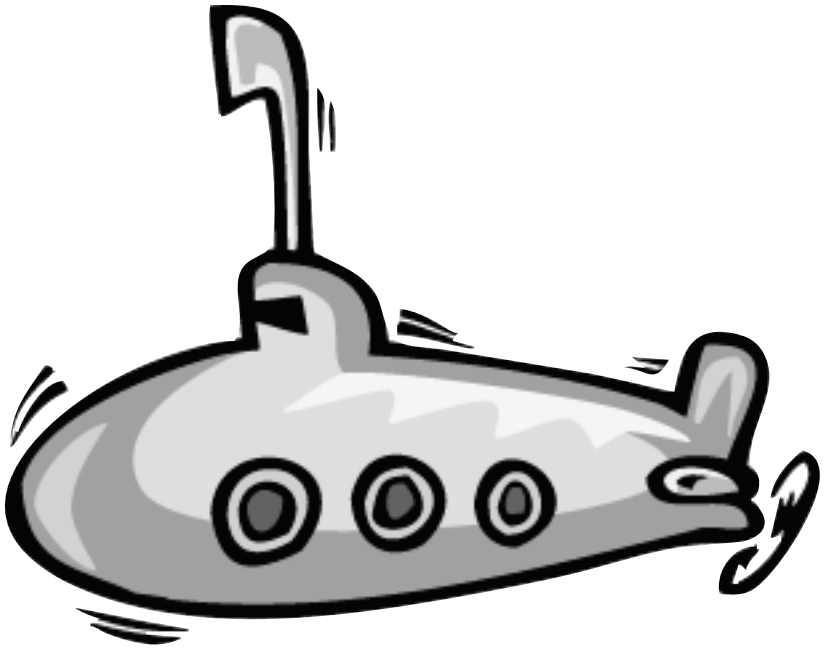
5. You finally reach the control center of the cell. To find the DNA sample, you must locate the organelle that holds DNA. What organelle are you looking for?

   _____

6. You find the correct organelle, collect the DNA sample, and steer back toward the cell's outer barrier. Suddenly, a small organelle rushes out of the soupy liquid toward your ship and tries to pour a powerful chemical over your submarine. Your boat's computer can raise an enzyme shield if you can quickly type the name of the organelle into your computer's system. What is this name?

   _____

Congratulations! You cut your way out of the cell, and the scientists enlarge you and your submarine back to normal size.



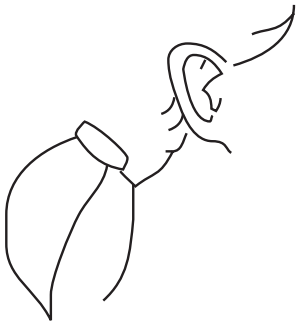
Which Hereditary Traits Do You Have?

All of the following traits are determined by your genes. Gather as a science team, and look for these traits in each other. Circle the traits that you have.

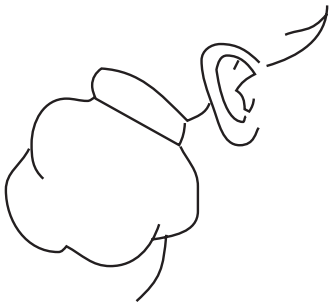
1. Tongue roller

Nonroller

2. Attached earlobes

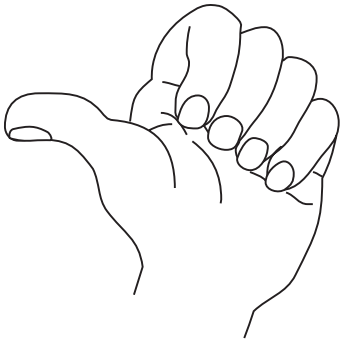


Free earlobes

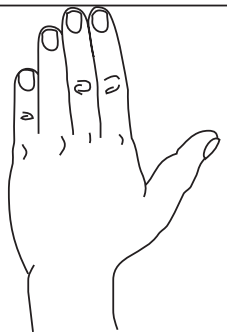


3. Straight thumb

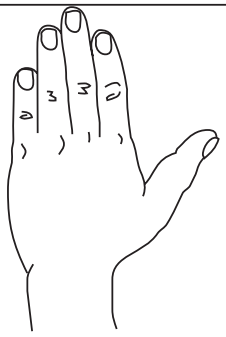
Bent thumb



4. Long index finger

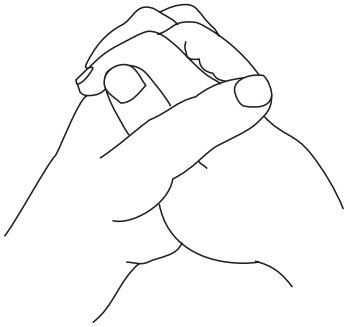


Short index finger



5. Right thumb on top when hands are clasped.

Left thumb on top when hands are clasped.



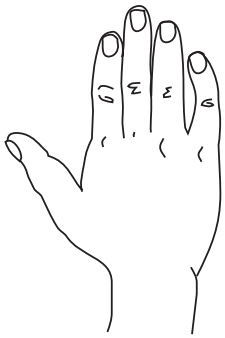
6. Dimples

No dimples

7. Freckles

No freckles

8. Bent little finger



Straight little finger