Name Date Per

UNIT 9	ONLINE LAB	*Paramecium Observation Lab*

Note: this lab is completed online. Visit the following address and click on "Lab 2"

http://labs.7bscience.com/protist-labs.html

Purpose*:*
•To observe paramecium and how they move
•To identify the parts of an paramecium

Part One - Background
Today you will observe another protist. In the previous lab (online or in class) you observed a type or protist called a protozoan. Recall that protozoans are animal-like protists. That is, they have similar characteristics to animals. Mainly, they are heterotrophs and they must hunt for their food.

Recall that protozoans can be classified by how they move. In the last lab you observed a type of sarcodine called an amoeba. All sarcodines move by using pseudopods, or temporary bulges in the cell membrane.

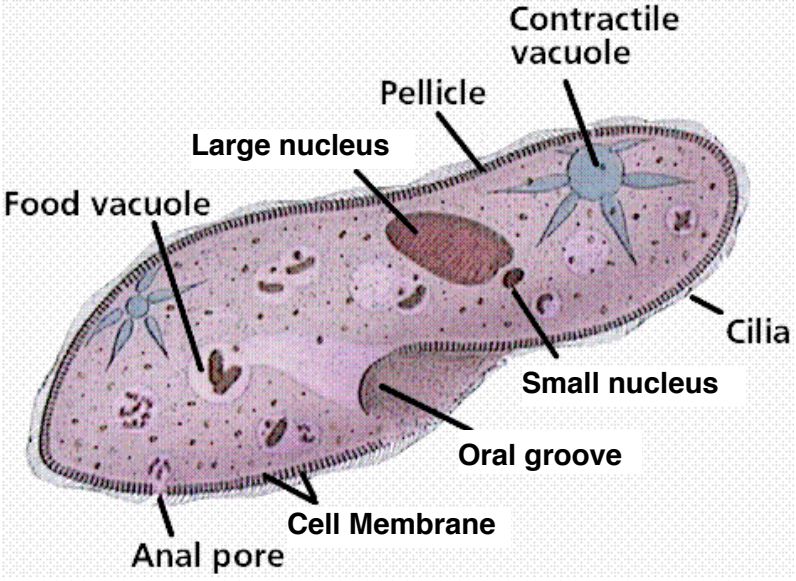
The protozoa you will observe today is called the paramecium. A paramecium is unicellular and moves by using _____. Cilia are _____ structures that are found on the surface of the organism. Cilia have three uses: 1._____, 2._____, 3. _____. Observe the video on the web site to see the cilia move on the paramecium.

Part Two - Cell Structures
Identifying structures in the paramecium is rather simple! As you read the information, fill in the blanks on your worksheet and identify the structures on your diagram.

First, observe the outside of the organism. What appears to be the cell membrane is actually a part called the _____. The pellicle is a _____, outer _____ that helps give the paramecium its _____. Unlike the amoeba, the paramecium is not able to change shapes (although it can bend and twist). Just below the pellicle you will find the _____ _____.

On the surface of the organism are short hair-like structures are the _____. As you already learned, the cilia have three functions: to help the paramecium move, to help

it capture food, and to help it sense the environment. Also on the surface you will find an indentation called the _____ _____. The oral grove is lined with _____ to help the organism capture _____. At the end of the oral grove is where the paramecium takes in its food through _____. The food enters the organism and becomes trapped in a _____ _____. The vacuole stores the food and is broken down when it combines with a _____. You may also be able to observe a part on the surface called the _____ _____. The anal pore is where the _____ leaves the organism.



Inside the organism you will also note a star-shaped organelle. This is the _____ _____. As with the amoeba, the contractile vacuole collects and removes excess _____. You can observe the contractile vacuole work in the video. Also inside you will find not one but TWO _____. The large nucleus controls the _____ of the cell. The large nucleus is visible and is a slightly different color from the rest of the organelles. The small nucleus only controls _____.

Paramecium can reproduce in two ways: asexually through _____ _____ and sexually through _____. In our bacteria unit we learned what binary fission and conjugation are. The same processes are true for paramecium. In binary fission, the cell splits in two and each cell receives the same copy of DNA from the parent cell. In conjugation, the paramecium shares genetic material with another paramecium before splitting. After splitting, each paramecia now has different DNA than the parent originally had.

Part Four - Labeling the Diagram

Label the diagram below with the following parts: anal pore, contractile vacuole, cytoplasm, cilia, food vacuole, oral groove, pellicle, large nucleus, small nucleus