Paramecium Lab

Purpose:

To observe the reproductive methods of a common ciliaphoran.

Procedure:

1. Observe *Paramecium* undergoing binary fission magnified on high power (on PowerPoint). Sketch the pair of cells illustrating where fission is almost complete and measure your drawing. Label the pellicle, cilia and macronucleus.

2. Observe *Paramecium* conjugating under high power (on PowerPoint). Sketch the pair of cells which are undergoing conjugation and measure your drawing. Label the pellicle, cilia, macronucleus and micronucleus.

Discussion:

1. Describe the process of binary fission.

2. Describe the process of conjugation.

3. Under what conditions would a paramecium reproduce sexually? Under what conditions would a paramecium reproduce asexually?

4. What are the functions of the two nuclei found in the paramecium?

5. What is the function of the contractile vacuole?

6. What is a trichocyst? What is its function?

7. Describe feeding and digestion in a paramecium.

Conclusion:

1. By simple observation, how can you tell which type of reproductive method is occurring? Why are the cells set up this way? How do the paramecia hold on to each other during conjugation?

2. Why would a paramecium choose sexual reproduction over asexual reproduction?

3. What would happen to the paramecium if you removed its macronucleus? What would happen if you removed the micronucleus?