

NAME _____

DATE _____

Introduction to Protista: *Paramecium*

In this activity, you will observe a *Paramecium* as an example of a protist.

Proceed to a workstation and pick up a microscope slide. Observe the *Paramecium* culture. Use a dropping pipet to remove a sample from the culture. Remove your sample from the bottom of the culture jar or from another area recommended by your teacher. To sample, squeeze the bulb of the pipet and lower the tip into the water to the area being sampled. Release pressure on the bulb to draw in the sample. Place 2–3 drops of the sample on a slide and gently cover with a coverslip. Examine under the low-power objective of your microscope to locate paramecia. When you have located a *Paramecium*, center it in the microscopic field, and swing the high-power objective in place.

Study the *Paramecium* carefully and note the following:

Oral groove A depression on one side of the body extending from the anterior end to beyond the middle. The oral groove serves to guide food particles, primarily bacteria, into the pharynx (gullet). Food particles collect in the bottom of the cavity and are budded off into new food vacuoles.

Food vacuoles Spherical structures of various sizes found in the cytoplasm. They contain food in the process of digestion.

Contractile vacuole A clear, spherical structure, which grows to large size, and suddenly collapses by discharging its contents to the exterior of the cell into the surrounding medium. How many contractile vacuoles does a *paramecium* have?

Radiating canals Channels in the cytoplasm that connect to the contractile vacuoles. They often give a star pattern to the contractile vacuoles.

Cilia Hair-like organelles for locomotion and food-getting. These cover most to the surface of the *paramecium*. If you watch the cilia in the oral groove you may see them sweep particles down the oral groove into the pharynx.

Movement Follow a *Paramecium* as it swims. You may have to switch to low power for this. Do you see anything that indicates that the *paramecium* has an anterior end? Explain

Draw a diagram showing the pattern of movement that you observed as a *Paramecium* swam.

What happens when a *Paramecium* meets an obstacle? Include a diagram.

Make a drawing of a *Paramecium*, labeling the parts.

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