

## Structure and Function In Paramecium

**Topic or Concept**

Structure and function in paramecium.

**Objective**

To examine a typical animal (paramecium) and to begin to correlate the functions of living with the structures observed.

<b>Materials</b> Available from Region 20 Living Science Materials Center	<b>Enrichment Activity</b>
LM-3 Paramecium caudatum LM-2 Paramecium multimicronucleatum Not Available from Region 20 Living Science Materials Center	<p><b>Procedure</b></p> <p>With a pipette containing several drops of syrup methyl cellulose solution make a small ring on the center of a clean slide. With a second pipette, place a drop of paramecium culture on the slide inside the ring and add a cover slip. Examine the drop carefully with the low power of your microscope. Use high power only for details. After making observations, add a drop of iodine or methylene blue to the slide.</p> <p><b>Questions</b></p> <p>What structures can you see that you did not see before?</p>
Methyl cellulose Microscope Pipettes Iodine or Methylene blue Microscope slides and cover Slips	

**Topic or Concept**

Movement and paramecium

**Objective**

Attempt to find patterns and methods of movement in paramecium.

<b>Materials</b> Available from Region 20 Living Science Materials Center	<b>Enrichment Activity</b>
LM-3 Paramecium caudatum LM-2 Paramecium multimicronucleatum Not Available from Region 20 Living Science Materials Center	<p><b>Procedure</b></p> <p>Make a thin ring of methyl cellulose on a clean slide of paramecium culture. Cover with cover slip and observe first under the low power of the microscope then under high power for detail. Determine the anterior and posterior ends. Add a few cotton fibers to your paramecium slide and notice the paramecium reaction. Add a small drop of carmine solution to the drop of paramecium culture on the slide. Under high power, observe the surface of the animal.</p>
Methyl cellulose Microscope Pipettes Microscope slides and cover slips Cotton Carmine solution	

**Topic or Concept**

Ingestion and digestion in paramecium.

**Objective**

Observe paramecium eating small plant cells (yeast) and to learn how digestion takes place to obtain the essential food requirements.

<p align="center"><b>Materials</b></p> <p align="center"><i>Available from Region 20 Living Science Materials Center</i></p>	<p align="center"><b>Enrichment Activity</b></p>
<p>LM-3 Paramecium caudatum LM-2 Paramecium multimicronucleatum</p>	<p><b>Procedure</b></p> <p>Prepare a ring of methyl cellulose as in previous exercises. Place a small drop of paramecium culture in the center of the slide and add a drop of yeast suspension. Cover immediately and observe it under the microscope. It will take only about 10 seconds for paramecium to ingest some yeast cells. Notice any color change in yeast cells.</p>
<p><i>Not Available from Region 20 Living Science Materials Center</i></p>	
<p>Methyl cellulose Microscope Microscope slides and cover slips Pipettes Yeast</p>	