**Observing Planarians Lab**

What are the structures and behaviors of planarians?

Planarians are invertebrate animals belonging to the *Phylum Platyhelminthes* (flatworms). You can easily find planarians on your own. Shake pond weeds into a pan or turn over stream rocks and look carefully at the rock surfaces. You can also collect flatworms on your own. Put a small pellet of canned pet food in an old nylon stocking. Secure that bag in a stream bed or pond shore overnight. In the morning you may find a collection of flatworms crawling over the bag! In this investigation, you will observe planarians and identify their structures and behavior. You will also design and conduct a few experiments.

**Materials**

- Live planarians
- Petri dish
- Spring water
- Plastic spoon
- Flashlight
- Paper bag
- Magnifying glass
- Microscope
- Depression slide and coverslip
- Food for planaria
- Pipette

**Observing your planarian**

A. You will receive a small petri dish with a flatworm inside it. The flatworm is the freshwater planarian, also known as *Dugesia*. Record all of your answers and data for Part 1 in **Table 1**. List 3 characteristics of flatworms.

B. What type of symmetry does this worm have? The term symmetry refers to the body plan of the organism. Use the diagram below to answer.

![Types of symmetry diagram](image)

C. Using the plastic spoon, carefully move your planarian into a depression slide containing a few drops of spring water.

D. Observe your worm using a microscope. Sketch the planarian. Label the eyespots. Label the anterior (front) and posterior (rear) ends.

E. Carefully transfer your worm back to its petri dish.

F. Measure your planarian. You can do this by removing some of the water from the dish and waiting for the worm to stretch out. Measure the length of the worm in millimeters. Always replace the water. You can use the dish lid to transfer water to and from the planarian environment.

G. Write your length on the board. When all the lengths are written down, determine the average planarian length.
Table 1 Planarian Observations

Characteristics of flatworms

1.

2.

3.

Type of symmetry:

Sketch:

Length of your planarian (mm):  Average length of planarians (mm):

Observing behavior and feeding

A. Observe the planarian for five minutes. Does the planarian seem active or passive? How does it move? Does it swim or creep? Record your observations in Table 2.

B. Where in the dish does your planarian spend most of its time? Record your observations in Table 2.

C. Make a current in the water with a pipette. How does the planarian react? Record your observations in Table 2.

Table 2: Planaria movement and behavior

<table>
<thead>
<tr>
<th>Movement</th>
<th>Location preference</th>
<th>Reaction to current</th>
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