

Stream Velocity & Discharge Group Instructions

1. Locate a site along the creek that is narrow, easy to access and where the water is not deeper than about 2 feet. There are good sites west of the Center Drive bridge.
2. Write a description of the sampling site on the data recording sheet.
3. Two students should remove their shoes and put on the wader boots.
4. Use the flow probe to measure the stream velocity. Here is how:
 - a. Unwind the propeller so that it is almost touching the nut farthest away from the square aluminum tube.
 - b. Have a partner reset the stopwatch.
 - c. Place the propeller just below the surface of the water and time how long it takes to spin to the opposite nut.
 - d. Because velocity is just distanced over time, and we now know both distance and time, we can use the laminated chart to get velocity.
5. In the same location, measure the depth of the water every 30 cm across the stream. Here is how:
 - a. Have two people stretch the measuring tape across the stream.
 - b. Have a third person use the meter markings on the flow probe to measure the distance from the stream bed to the surface of the water at each 30 cm increment across the stream.
6. Fill out the data sheet and do the simple calculations with help of the calculator.

Date: _____ Latitude: _____ °N																																																					
Time: _____ Longitude: _____ °W																																																					
Site Description:																																																					
Velocity = _____ m/s																																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Depth in Meters</th> <th style="width: 33%;">Distance Multiplier</th> <th style="width: 33%;">Incremental Area (m²)</th> </tr> </thead> <tbody> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr><td> </td><td>0.30 m</td><td> </td></tr> <tr> <td colspan="2" style="text-align: right;">Total Area:</td> <td> </td> </tr> </tbody> </table>			Depth in Meters	Distance Multiplier	Incremental Area (m ²)		0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m			0.30 m		Total Area:		
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