

Lesson Plans: Surface Currents

Objective

The objective is to demonstrate the simple surface currents and to calculate the speed of current.

Materials

Each student or group of students will need the following:

- Books
- Pencil/pen
- Sticks
- Tennis balls
- Measuring tape or rope
- Time clock/stopwatch

Important Points to Understand

Speed is defined as a distance traveled in a unit of time, e.g., second, minute, and hour. Speed of an object can be calculated as follows: $\text{Speed} = \text{Distance}/\text{Time}$

Procedure

1. Take students to the site of the activity (e.g., shallow channel, creek, or river).
2. Measure along the side of the sites about 20 meters and use the sticks to mark the ends.
3. Have 3 students to work in each group. One student will be at the starting point to release the ball, the second one as time keeper (to keep the time as the ball flows to the finishing point), and the third one at the finishing point to retrieve the ball.
4. Have each group calculate the average speed of the surface currents by tabulating their results.

5.	Distance	Time	Speed = Distance/Time
1			
2			
3			
Average Speed			

Questions

1. Why is it necessary to allow the ball to run several times?
2. What will happen if the two points (start I finish) are too far apart? Why?
3. Why is the water in motion all the time?