

Reaction Time Lab

Teacher Information

Time Allowance

50 minutes

Background Information

Making a physical response to a stimulus from the environment requires:

1. Detection of the stimulus by a receptor such as the eyes or ears;
2. Interpretation of the stimulus and transfer of the signal through the nervous system;
3. The actual motion signals the response.

Students will work with a partner to measure each other's reaction times.

Materials

desks or tables

meter stick (per pair of students)

student data logs

Procedure – Part I

1. Students will work in pairs.
2. One student should be seated and rest his arm on lab table with his dominant hand extending over the edge of the table.
3. This student will be asked hold his hand as if grabbing a glass, leaving an opening of 4 to 5 cm between his fingers and thumb.
4. Second student will vertically hold a meter stick so that the 0 edge of the meter stick is positioned just above the open hand.
5. The first student will be instructed to catch the stick as soon as he sees it falling.
6. The second student will release the meter stick so that the stick drops through his partner's fingers.
7. The students will read and record the number just above the thumb.
8. Steps 1-6 twill be repeated ten times, then averaged.
9. Students will exchange places and perform the test on the student who held the meter stick.

Procedure – Part II

1. Students will graph the results linearly to see if their reaction time improved over the course of the 10 drops.