

STICK IN THE GROUND EXPERIMENT

Procedure and Hints:

1. Pick a sunny or partly cloudy day to take your data.
2. Find a straight stick or piece of pipe that is at least 2 ½ feet long. Place it in the ground so that it is vertical. Make sure that it is deep enough in the ground so that it cannot be moved by the wind etc. Once it is placed in the ground, it should not be disturbed while you take your data.
3. Find or make four markers they you can easily identify. They can be coins, washers small stones etc.
4. Place your first maker at the tip of the shadow cast by your stick, make measurements, and place them in your data table below.
5. Allow 30 - 45 minutes to pass and make your second observation by placing the second marker at the tip of the shadow. Make your measurements and post the data table for your second marker. Repeat this process with your remaining markers.

Data Collection:

Length of your sick: _____ Length above the ground: _____ Date of Observation: _____

Marker	Time	Shadow Length	Distance between Markers
1			
2			
3			
4			

Draw a diagram that shows what you observed

Questions and Analysis. (Use additional sheets of paper if necessary)

1. What can you conclude from your observations about the movement of the shadow tip?
2. What happened to the length of the shadow?
3. What are the sources of error for your experiment?

Make a copy of your data sheet - You will turn one in at the beginning of class and use the other with your study group.