PROJECT 4-9 MOVEMENT OF PLANT STEMS

PROBLEM

The growing tip of a stem does not grow directly vertically but moves upwards in a helical path. The problem is whether there is a difference in the magnitude of the movement (called circumnutation) in shrub plants and twining climbers. What environmental factors affect the movement e.g. will it continue in complete darkness? What happens if a piece of vertical fencing wire is placed in the path of a twining stem of leaf tendril?

INFORMATION

1. Young fast growing seedlings in pots are best for this experiment.

2. en though it is 100 years old! The idea is to mount a sheet of glass about 10 cm above the plants and to line up the apex and put a spot on the glass. Doing this every couple of hours gives you a For some plants it is easy to line up the apex, for others like peas, placing a piece of glass rod vertically at the apex is a help. To do this, thread a 3 cm fine capillary tube through a triangular piece of paper and insert it into the apical region (do it is held by the stipules of the youngest leaves. Sight down the length of the capillary and put a spot on the glass where the line of