

The Travelling Salesman



The Problem

It's a common problem, and applies as much to travelling salesmen as to paper rounds! The salesman has a widely spread number of calls to make, but wishes to do so by covering as little ground as possible. Should he travel in a closed shape like an irregular polygon, or would it be better to criss cross the area to shorten his journey? In times of high fuel costs and concerns over carbon emissions, this is more than just an intellectual puzzle!

This activity is a practical demonstration of the problem. Several locations with mathematical association are marked on a map of the UK with pins. The student is given a flexible piece of cord with eyes at both ends, the length of which is equal to the shortest possible journey. Only by linking the cord around the pins in the correct order will the final eye drop back over the starting pin and complete the journey.



The solution