

## The Size of a Monster

You have a very hungry monster in an almost completely closed room. There is a door to enter and a thin slit along the entire length of a side. Before you enter the room you must determine the width of the monster. You also have a large supply of small rocks.

Using a monster that looks remarkably like an aluminum soft drink can and rocks that look like marbles, you are to determine its experimental width and compare that value to its actual width. Each time the monster is hit it grumbles (klinks?) and moves, never touching any of the walls.

A couple of hints: 1) Each group will need to randomly throw at least 200 rocks through the slit into the room. 2) What is the probability of hitting the monster if it is half the size of the room? 3) Look up the Rutherford experiment. 4) Does the size of the rock make a difference?