

Investigation 1

Problem: How much force is required to make a shoe slide?

Challenge 1: Does the weight pushing down on the shoe make any difference to the force required?

Challenge 2: Does the type of shoe make any difference to the force required?

Challenge 3: Is there a pattern to the way the weight in the shoe changes the sliding force needed to start the shoe moving?

Investigation 2

Problem: With the shoe on a slope, what angle of slope is needed to just make the shoe start to slide?

Challenge 1: Does the weight in the shoe make any difference?

Challenge 2: Is there a pattern between the weight in the shoe and the angle of slide?