

KEY STAGE: 2

AT/SC: 4

TITLE: Which shoe has the best grip?

Programme of Study:

- 4.2(c) About friction as a force which slows moving objects
- 4.2(h) That unbalanced forces can make things speed up or slow down

Points to consider:

Introduce after initial work on the forces of friction and how the force can be measured

- using weights or
- using a Newtonmeter (forcemeter)

Possible AT1 teaching focus:	Comments:
<ul style="list-style-type: none"><u>Planning</u>Asking questionsPredicting• Fair Testing• Choosing equipment<u>Obtaining Evidence</u>• Using tablesUsing equipmentObserving and sortingRepeating readings<u>Considering evidence</u>Using graphsDrawing conclusionsInterpretingUsing science<u>Evaluating</u>Sufficient evidence?Consider anomaliesConsider improvements	<p>Encourage introducing measurement. How will they measure?</p> <p>The test design should be well placed and consideration given to the fairness of the test as there are many variables - perhaps children could list the variables that need to be kept the same eg</p> <ul style="list-style-type: none">• where will you place the shoe? Toe or heel starting point?• how far will the shoe need to move?