


Topic: Forces	Year 3 Age 7-8	Title: Shoe grip
Working Scientifically Focus Plan: Set up simple practical enquiries		Conceptual Knowledge Some forces need contact between two objects
Assessment focus <ul style="list-style-type: none"> • Can children plan and set up a fair test? 		
<p>Activity Invite children to examine a collection of shoes and to look at the shoe's grip. Ask children to plan (in small groups) their own way of testing the shoe's grip but give teacher support where needed. Have useful equipment visible, e.g. ramps (for lifting until the shoe slips), Newton meters (for pulling). A further option could be for runs across the hall to be timed wearing shoes, trainers, socks and bare feet. Record the plans in words and/or diagrams.</p> <p>Adapting the activity Support: Ask children to explain what they are changing and what they are keeping the same each time. Could focus on comparing just two shoes & explaining why one slides more easily than the other. Extension: Ask the children to explain how their plan will be a fair test. Ask for explanations about why the different shoes are giving different results. Other ideas: Children could explore how shoes perform on different surfaces.</p> <p>Key Questions</p> <ul style="list-style-type: none"> • How can we find out which shoe has the best grip? • What could we measure? • What would you need to keep the same to make your test fair? • Which shoes had more grip? How do you know? • Which shoe needed the most force/tilt of the ramp? Why could that be? • What do you think it is about that shoe that gave it such a good grip? 		
<p>Assessment Indicators</p> <p>Not yet met: Can make suggestions about how to answer the question, and with support, can devise a simple test. Needs support to explain what has to be kept the same.</p> <p>Meeting: Can devise a way of answering the question. Can say what was changed and what was kept the same.</p> <p>Exceeding: Can give examples of other variables which might affect the test and suggest a comparative test to investigate these, e.g. <i>different surfaces, different angles of the ramp.</i></p>		