

Activity: Will it move?

National Curriculum Links:

Working scientifically

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments.

Forces

- identify the effects of air resistance, water resistance and friction, that act between moving surfaces

Suggested Park location: The Peace Pagoda

What do we need?

Boxes filled with weights/object to weigh them down/sand, one per group
 String
 Different materials to cover the lower surface of the box – e.g. bubble wrap, plastic bags, fabric, sandpaper
 Sticky tape
 Clipboards
 Pencils
 Force metre – one per group



What do we do?

- Explain that they are going to investigate how different surfaces effect friction.
 - What effect do the pupils think different surfaces will have on friction?
- Looking at the equipment and the environment how do the pupils think we could investigate this?

There are rough tarmac surfaces, grass or a smooth marble surface next to the pagoda. The pupils can cover the bottom face of the box they are pulling across the same surface or they could investigate whether it is harder/easier to pull the box across the tarmac, the grass or the marble.

- What do they think will happen when they pull their box across a rougher surface or cover the bottom face of their box with a rougher material?
- How will they measure the amount of friction?
- How will they make it fair? What will they record?





Science in Battersea Park – Year 5



Will it move? Record sheet

Group name: _____

Your hypothesis:

Surface	Force measured	What you noticed

Explain why you got the results that you did.

