

# LEARNING RESOURCE

## STOMP ROCKETS

### AIM

- Investigate forces, especially the 2nd Law of Motion. Look at the relationships between mass, distance, speed and the relative conclusions that can be made regarding the force applied.

### OBJECTIVES

- To understand the relationship between force, mass and acceleration.

### SCHEMES OF WORK

- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- Identify the effects of air resistance, water resistance and friction that act between moving surfaces.

### INQUIRY

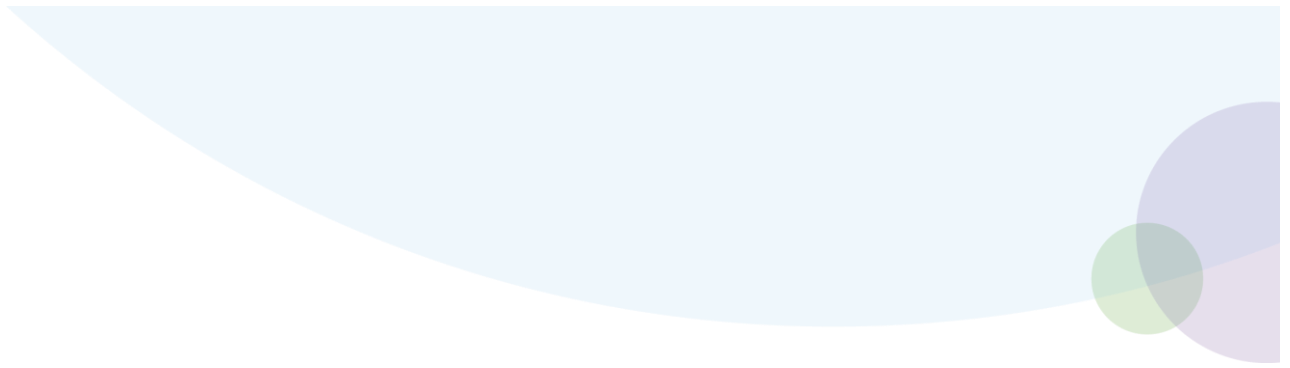
- Comparing how different things move and grouping them; raising questions and carrying out tests to find out how far things move on different surfaces, and gathering and recording data to find answers to their questions.

### CRITICAL THINKING

- How to create fair tests. How to measure and record results.

### MATERIALS

- Large (approx 2ltr) empty soft drinks bottle, with screw on lid,
- ½ Meter of hosepipe
- Gaffa tape
- A4 paper (preferably pre-used)
- Sellotape



- Scissors
- Crayons
- Selection of weights

### **PREPARATION**

- Rinse bottle and leave to dry
- Remove lid and replace lid with one end of hosepipe.
- Stick in place using gaffa tape.
- Make sure is airtight by blowing down hosepipe.

### **HOW TO BUILD YOUR STOMP ROCKET**

- Use the end of the hosepipe to roll your piece of paper around and tape in place, making a tube of paper.
  - Remove the hosepipe, then flatten one end of your paper tube and put a piece of tape over that end to seal. This end is your 'nose cone'.
  - Cut some triangles and stick in place around the bottom of your rocket. These are your tail fins.
  - Put rocket on launcher and stomp
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