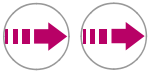


ELASTIC BAND ROLLERS

LEVEL OF DIFFICULTY



OUTLINE OF ACTIVITY

This activity is a variation on the 'cotton reel tank'. The elastic band roller is easy to make and is appropriate for children (early years children may need help with cutting the pieces of section wood). With a little practice the roller should run up to 10 metres.

EQUIPMENT

Quantities are based on a **make and take** approach to produce 20 elastic band rollers.

- | | |
|---|-----------------------|
| • variety of card discs sizes | • junior hacksaws x 5 |
| • elastic bands (about 16 cm long) x 20 | • hammer |
| • drawing pins | • bench hooks x 5 |
| • metal washers x 20 | • paper clips |
| • dowel | • small pulleys x 20 |
| • square section wood | • blutac |

SCIENCE CONTEXT

Forces and friction, including air resistance, as a force which slows moving objects down and may prevent them from starting to move. When objects are pushed or pulled, an opposing force can be felt.

SCIENTIFIC EXPLANATION

The band roller is a simple model to demonstrate energy changes. Potential energy is stored in the rubber band as it is wound up. When the roller is released the energy transfers from potential energy to kinetic energy