



Forces - that motion can be transferred using gears and pulleys

Gears, lever and pulleys are simple machines, but some children think of a machine as something large, complex and possibly dangerous used in a factory, so challenging this idea will be important.

Scaffold children to understand the difficult idea that motion can be transferred using gears, pulleys and levers, by giving children hands on experiences where a small force applied by themselves lifts or moves a heavy (safe) object.

Linking this to design technology activities where children make models, such as make a robot that can lift an object, or an Egyptian shaduf will help children to apply their understanding.

Working scientifically

Children should access everyday applications of levers, pulleys and gears by using and observing for example, nutcrackers, rotary whisks, hand drills, tin openers, tongs, as well as looking at seesaws, bicycles, and applications on a building site. Fair test multiply pulleys, collecting numerical data.

Key scientific vocabulary

Apply, direction, forces, levers, lift, machines, move, movement, pivot, pull, pulleys, push, work

Link to resource packages

Year 5 Forces: www.nationalstemcentre.org.uk/elibrary/list/7317/year-5-forces

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