



## The Lifter



### The problem

Jack, Jill and Zog have a wonderful tree house, but it's hard work climbing up and down. It's even more difficult if they want to stock up with supplies.

Can you help Jack and Jill come up with a solution?

# The Lifter

## Objectives

Applying knowledge of:

- Pulleys
- Gears
- Forces
- Applying principles of fair testing and product safety

## Other materials required

- A ruler

## Fair testing and fun

- Does it lift smoothly and at a safe speed?
- Without supporting or stopping it from tilting, test how much the lift can carry.
- Load the lift and test how much it can carry before the motor stalls.

## Extra challenges

- Construct a mechanism that makes a sound when the supplies have reached the tree house.

◀ Need help?  
Look at:



Power Car



Fishing Rod



Principle Models Building  
Instructions booklet for  
gears and levers