

Simple machines do work: levers and pulleys

energy-forces

What you need: 30 cm ruler or equal card strips · pencil or dowel to use as a lever pivot · cotton reel or small pulley wheel · string or strong twine (about 1.5 m) · metre stick · two stable chairs for hanging the metre stick · small load (cloth bag with multilink cubes, or light plastic bottle less than half full) · Investigation Journal page

Words to use

Simple machine · Lever · Pulley · Trade-off

Our question

How does a lever or a single pulley change the effort needed to raise the same load?

I predict...because...

What we found out

When the lever made the push easier, what happened to the distance your hand moved?

What did the single pulley change most clearly compared with lifting by hand?
