# How Do a Pulley and a Wheel-and-Axle Help Us Do Work? 

## You could climb to the top of the pole, but who would do that?



## pulley

a wheel with a line around it


## Some everyday uses of a pulley:



## A pulley changes the direction of the force.



## A single fixed pulley doesn't change the amount of force needed.



Force and Distance used in Pulley Systems

## To be a simple machine, the wheel and the axle must turn together.



## Wheel-and-Axles are used in mills.



A wheel-and-axle changes the way work is done (not the direction).


