

Mechanisms

KS2 Dt · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

How does a lever make lifting something easier?

Step 1 · Think about the pivot point (fulcrum)

Pushing down on one end lifts the other end, needing less force than lifting directly

Answer: A lever uses a pivot point to make lifting easier — pushing down on the long end lifts a heavy load on the short end with less effort

Check: A seesaw and a crowbar both work using this same lever principle.

2. Now try one with the steps

Why do bicycles use gears of different sizes?

Step 1 · Think about pedalling uphill vs on flat ground

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. What do we call the fixed pivot point a lever turns around?

2. Name a mechanism that uses a wheel and rope to lift heavy loads.

3. What do interlocking toothed wheels change about movement?

4. Name an everyday object that uses a lever.

5. Explain how a linkage mechanism could turn an up-and-down movement into a side-to-side movement.

6. Why might a toy designer use gears instead of just connecting two wheels directly together?

4. Before you hand it in

Thinking all mechanisms do the same job (just 'making things move').

Learn what each mechanism specifically changes: force, direction, speed, or type of movement.

Assuming a lever always makes things easier, regardless of where the fulcrum is placed.

Think about where the fulcrum sits relative to the effort and the load.