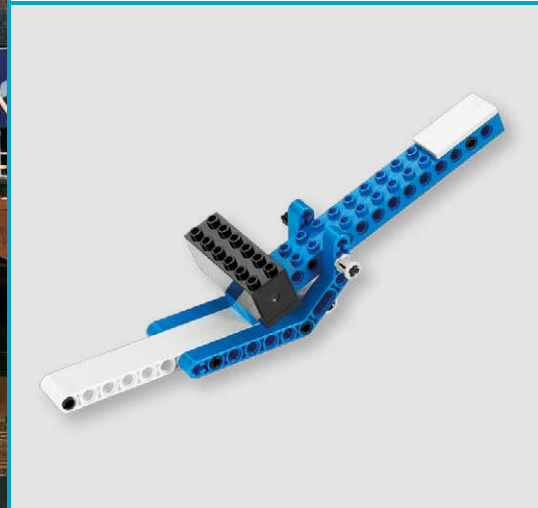
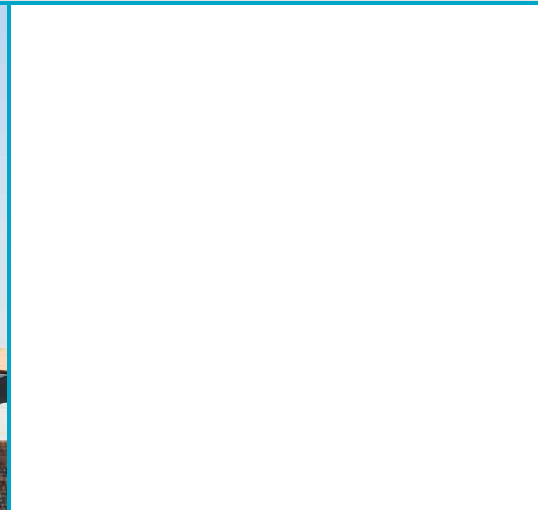
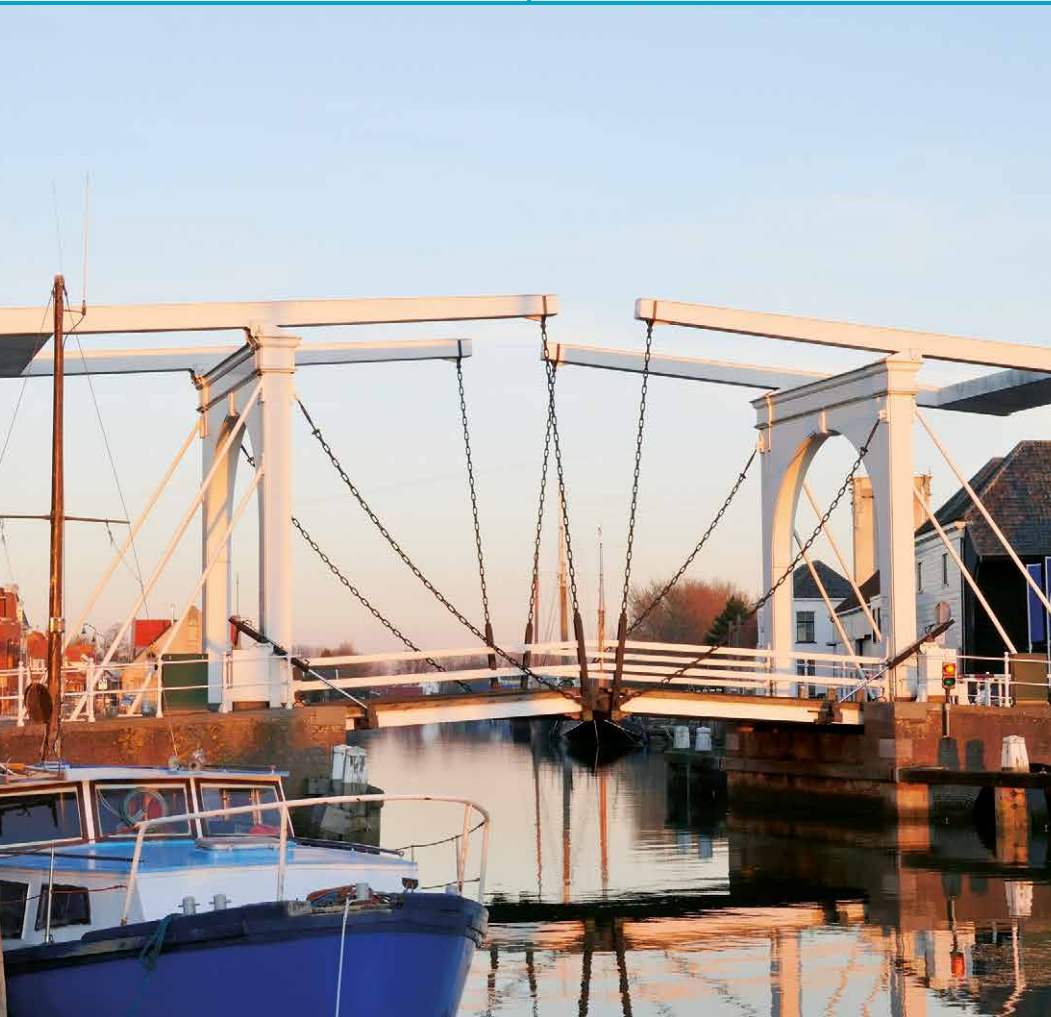


Lever

Student Worksheet

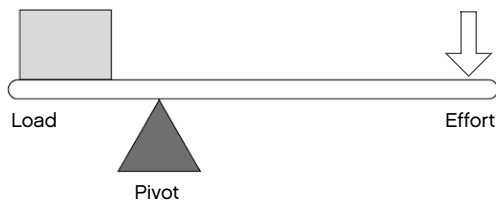


Simple Machines: Lever

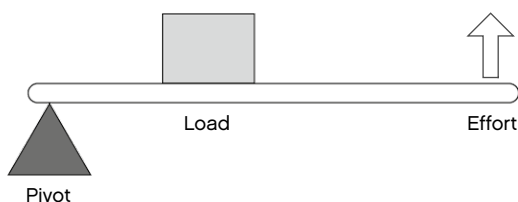
The lever is probably the most commonly used simple machine. A lever is a rigid bar or solid object that is used to transfer force.

With a pivot, the lever can be used to change the force that is applied (effort), alter the direction, and change the distance of movement. An effort, a pivot, and a load are three features that are common in every lever.

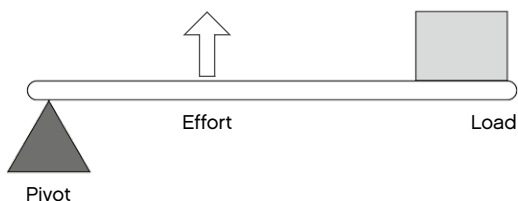
Depending on the positions of these shared features, you can distinguish between first, second, or third class levers.



First class levers have the pivot positioned between the effort and the load. Common examples of first class levers include a seesaw, a crowbar, pliers, and scissors.



Second class levers have the pivot and the effort at opposite ends and the load positioned between the two. Common examples of second class levers include nutcrackers, wheelbarrows, and bottle openers.



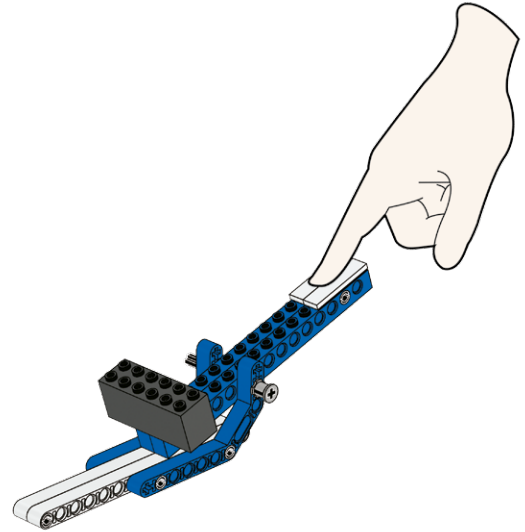
Third class levers have the pivot and the load at opposite ends and the effort positioned between the two. Common examples of third class levers include tweezers and ice tongs.

Did you know?
The term lever derives from the French word *levier* which means 'to raise.'

A1

Build A1 book I, pages 2 to 3

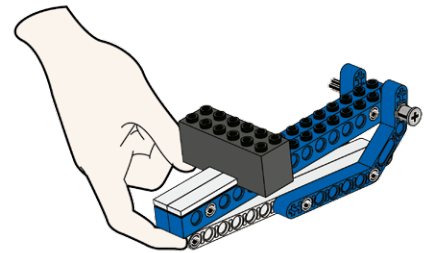
Press down on the lever to lift the load.
Describe how hard or easy it was to lift the load.
Circle and label the pivot, load, and effort.
Which class of lever is this?



A2

Build A2 book I, page 4 to 5

Raise the lever.
Describe how hard or easy it was to lift the load.
Circle and label the pivot, load, and effort.
Which class of lever is this?



A3

Build A3 book I, page 6 to 7

Raise the lever.
Describe how hard or easy it was to lift the load.
Circle and label the pivot, load, and effort.
Which class of lever is this?

