

What Is a Machine?

A huge road train, travelling thousands of kilometres through the desert, is a machine.



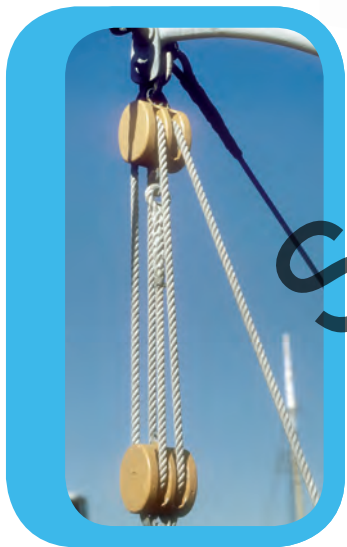
So is a knife.



A helicopter that fights fires is a machine.



So is a pulley.



It is hard to see what all of these things have in common. They are very different.

What makes all of these things machines?

A machine is any thing that does work. You need **effort** to do work, but a machine makes that work easier.



You need a lot of effort to lift a box but a machine can make this job a lot easier. (Never lift a heavy box without help.)



A machine can have fixed or moving parts. The parts in this machine pass on power and movement to lift the load.

A machine needs **energy** so that it can work.

The machine uses energy to create a **force**.

The machine's force overcomes a **resistance** or lifts a **load**.