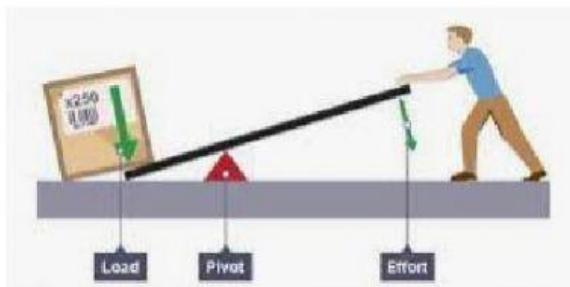


Simple Machines

1. A simple machine is any device/tool that helps to perform work easily.
2. A lever is a simple machine that makes work easier for use.
3. A lever consists of a fulcrum or pivot, effort – applied force and load weight.



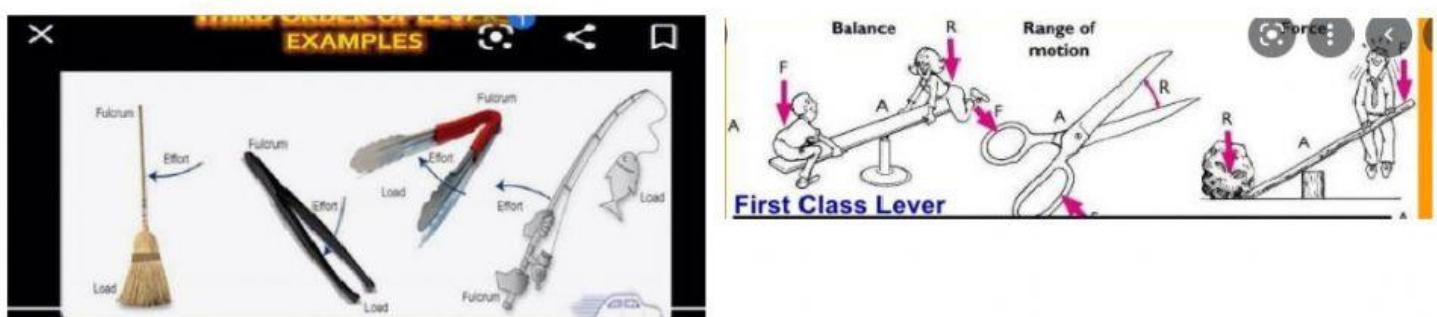
4. There are three types/classes of levers.
5. The three classes of lever depend on where the fulcrum and effort is located.

6. Class 1 lever or first class lever

- a) A first class or class 1 lever has the fulcrum or pivot placed between the effort and load. The movement of the load is in the opposite direction of the movement of the effort.

e.g. see-saw, hammer pulling a nail, scissors, pliers.

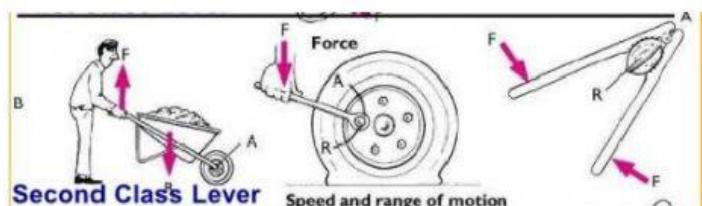
Scissors and pliers are considered to be double class 1 lever (2 efforts)



7. Class 2 or second class lever

A class 2 or second class lever has the load in between the effort and the fulcrum/ pivot. In this type of lever the movement of the load is the same direction as that of the effort.

E.g. wheel barrow, can openers, nail clippers, doors.



2nd class lever examples

- Nutcracker
- Wheelbarrow
- car door



8. A class 3 or third class lever

A class 3 or third class lever has the effort in between the load and fulcrum. Both the effort and load are in the same direction.

