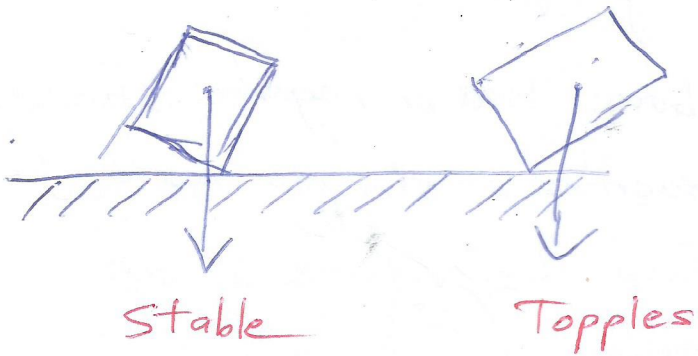


Centre of gravity (C.G.)

A body behaves as if all its weight were concentrated at one point called its centre of gravity; even though the earth attracts every part of it. Eg. The C.G. of a ruler is at its centre and when supported there it balances but will topple over if supported at any other point. This is because the moment of its weight W about the point of support is not zero.

The position of the C.G. of a body affects whether or not it topples over easily. The importance of this comes in the design of many things such as tall vehicles, racing cars, reading lamps.

A body will topple when the vertical line through its C.G. falls outside its base. Apart from this, it will remain stable.



The stability of a body can be increased by :

- i. lowering its C.G.
- ii. increasing the area of its base.