

Conservative and Non Conservative Force

There are two types of forces

- (i) conservative force
- (ii) non-conservative forces.

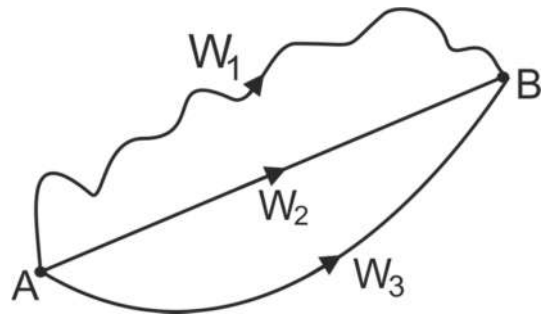
Conservative force:

The force under which the work done doesn't depend upon the path actually followed by the body from its initial to final position, is known as a conservative force.

i.e. if $w_1 = w_2 = w_3$ then the force is called conservative.

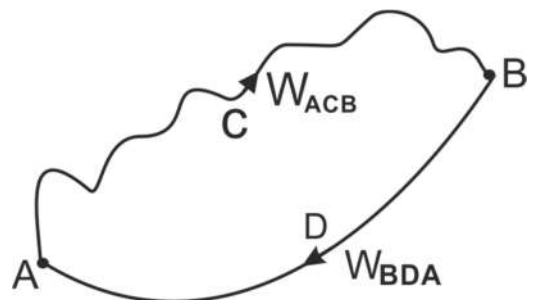
The forces, work done by which is independent of the path followed, are

conservative force e.g. **gravitational force, electrostatic force, spring force etc.**



Properties of conservative force:

1. The work done under conservative force only depends upon the initial and final position of the body.



2. Total work done under conservative force in a cyclic path must be equal to zero.