

B/1) Force is the term used for the push or pull.

2) one example of force is:-

(i) a push:- To open a door, we push it.

(ii) a pull:- To move a grass roller on a lawn, it is pulled by a gardener.

(iii) a stretch:- When a rubber string is stretched, its length increases.

(iv) a squeeze:- On squeezing a tube of gum or toothpaste, its shape changes.

ans-3) Force is a cause (a push or pull) which can change the state of rest or motion of the body or can change the size and shape of the body by stretch or squeeze (i.e. it can deform a body).

ans-4) When a force is applied on a stationary body, it begins to move for example a car originally at rest when pushed, begins to move. A grass roller when pulled begins to move. A ball lying on the ground moves, when it is kicked.

Different effects of force

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• With appropriate examples:

(1) A force can move a body originally at rest:

When a force is applied on a body originally at rest, the body begins to move.
For example: - a car originally at rest when pushed, begins to move.

(2) A force can stop a moving body:

When a force is applied on a moving body in a direction opposite to the direction of motion of the body, it can be made to stop.
For example: - a moving bicycle, bus or train is stopped by applying the brakes. The brakes act against the direction of motion of bicycle, bus or train. Thus, the brakes provide the stopping force.

(3) A force can make a moving body to move faster:

When a force is applied on a moving body in a direction ~~opposite~~ in which it is moving, the body begins to move faster. For example: - the speed of a bicycle increases when more force is applied on the pedal by the cyclist.

(4) A force can slow down a moving body:
 When a force is applied on a moving body in a direction opposite to the direction of motion of the body, the body slows down or stops. For example:- the speed of a moving vehicle slowed down by applying brakes. The brakes provide a force in a direction opposite to the direction of motion.

(5) A force can change the direction of motion of a moving body:

If a force is applied on a moving body in a direction other than its direction of motion, the direction of motion of the body changes.

For example:- a player kicks a moving football to change its direction of motion.

(6) A force can change the shape or size of a body:
 When a force is applied on a body which is not allowed to move, it gets deformed, i.e. the shape or size of the body changes, for example:- on squeezing a piece of rubber, its shape changes, on stretching a rubber string, its length increases.