

Class–VIII (CHAPTER-11) Force and Pressure
Answers

1.

Examples of Push force:

1. A toy car is at rest and is applied a push force to move it.
2. We push a bicycle to move it.

Examples of pull force:

1. Pulling a drawer
2. Pulling a rope to draw water from a well

2.

Two examples of situation where a force can change the shape of an object are:

1. Plastic bottles changes their shape when it is squeezed.
2. Stretching a rubber band changes its shape.

3.

- (a) To draw water from a well we have to pull at the rope.
- (b) A charged body attracts an uncharged body towards it.
- (c) To move a loaded trolley, we have to either push or pull it.
- (d) The north pole of a magnet repels the north pole of another magnet.

4.

- (a) To stretch the bow, the archer applies a force that causes a change in its shape.
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- (b) The force applied by the archer to stretch the bow is an example of muscular force.
- (c) The type of force responsible for a change in the state of motion of the arrow is an example of a contact force.
- (d) While the arrow moves towards its target, the forces acting on it are due to gravity and that due to friction of air.

5.

- (a) When a lemon is squeezed, muscular force is applied by the hands on the lemon. As a result, the shape of lemon gets changed.
- (b) Muscular force is applied by the hand on the tube of the toothpaste which results in the change of shape of the tube.
- (c) The suspended load exerts a downward force on the spring as a result of which the spring elongates.
- (d) When an athlete attempts a high jump, his feet applies muscular force on the ground. As a result, he jumps over the bar and his state of motion gets changed.

6. A blacksmith hammers a hot piece of iron. He applies a huge compressive force on the iron which changes the shape of the iron piece.

7. When an inflated balloon is rubbed against a wall after it has been rubbed with synthetic cloth, the balloon becomes charged. A charged body attracts an uncharged body due to which the

balloon sticks to the wall. This force between the charged balloon and the wall is known as electrostatic force.

8. The forces acting on the plastic bucket are muscular force applied by hand and weight due to gravity. These two forces are equal and opposite to each other thus no change is observed in its state of motion.
9. The forces acting on the rocket immediately after launching are the force of gravity/weight and friction due to the earth's atmosphere.
10. (d) Atmospheric pressure.

When the air escapes from the nozzle of the dropper, it causes a pressure difference due to which water is sucked into the nozzle of the dropper.
