

Answer on Question #43531, Physics, Other

Task: state action and reaction in the following cases:-

- a) swimming
- b) walking
- c) firing a bullet from gun

Answer:

- a) A swimmer moves forward by exerting an action force on the water with her hands. The water pushes on her hands with an equal reaction force that propels her body forward.
- b) When you walk, you push backward on the ground with your feet (action force) and the ground pushed forward on your feet with an equal and opposite force (reaction force).
- c) Action is the force exerted by gun on the bullet and the reaction is the force exerted by bullet on the gun because of which it recoils.

The recoil is the opposite reaction to the bullet being fired forward. A gun's recoil is due to the gases created by the explosion of the bullet's casing, which are used to propel the bullet from the gun, because the gases are released so quickly, the gun recoils, to compensate.