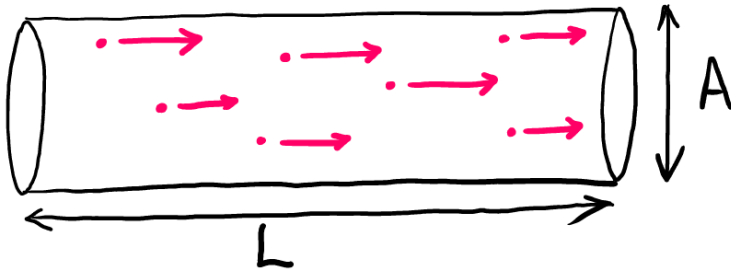


# Concept of DRIFT VELOCITY slide 1

22 February 2021 06:13

The diagram shows a metal conductor of length  $L$  and cross-sectional area  $A$ . When no potential difference is applied, the electrons in the conductor move completely randomly such that the net current flowing through this conductor is taken to be zero amperes.

When the ends of the conductor are now connected to a power supply, the battery creates an electric field across the ends of the conductor. This electric field influences all the electrons to now move in one particular direction. As a result flow of current occurs through the conductor. The speed with which the electron now move through the conductor is referred to as the drift velocity of the electrons.



PapaCambridge<sup>(v)</sup>