

# VIDYA BHAWAN BALIKA VIDYAPEETH

## STUDY MATERIAL SCIENCE CLASS-VII

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Teacher : Poonam Kumari

### ▶ Heating & Magnetic effect of Electric current

#### (i) Resistance of wire:

Greater the resistance of a wire, greater will be the heat produced in it by a given current,

e.g. if we choose two wires, one of copper and other is nichrome of equal length and equal thickness and pass them the equal amount of current through them for the same duration, then we will notice that nichrome wire will become hotter in comparison to the copper wire. It is due to the reason that the resistance of nichrome wire is more than that of the copper wire.

That is why the nichrome wire is used to make heating elements of electric heating appliances such as electric room heater, electric iron, etc. The resistance of a wire depends on the material of the wire, length of wire and thickness of the wire.