

CLASS 7

SCIENCE

REVISION NOTES

## Revision Notes for Class 7 Science Chapter 3: Electricity – Circuits and their Components

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Condensed revision notes for Class 7 Science Chapter 3: Electricity - Circuits and their Components - Curiosity textbook.

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**Electric circuit:** a complete (closed) path along which electric current can flow; an open/incomplete circuit stops current flow.

**Electric cell:** a portable source of electrical energy with a positive terminal (metal cap) and negative terminal (flat disc). **Battery:** two or more cells connected in series (positive-to-negative), adding up their voltage.

**Switch:** opens or closes the circuit's path; it does NOT supply electrical energy itself, only controls whether current can flow.

**Incandescent lamp:** glows via a heated filament, works regardless of connection direction. **LED:** has no filament, has a longer (positive) and shorter (negative) lead, and only glows if connected in the correct direction.

**Series circuit:** all components share a single path; if one breaks, the whole circuit stops working (e.g. two lamps end-to-end — if one filament breaks, both go out).

**Conductors** (allow current to flow): metals like copper, aluminium, and also graphite (a non-metal exception). **Insulators** (block current): rubber, plastic, wood, glass, paper, wax.

**Wire insulation:** wires are covered in rubber/plastic to prevent current leakage, protect against shocks, and prevent short circuits from wires touching.

**Circuit symbols:** a cell/battery = pair of parallel lines (long=positive, short=negative); a bulb = circle with an X inside.

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