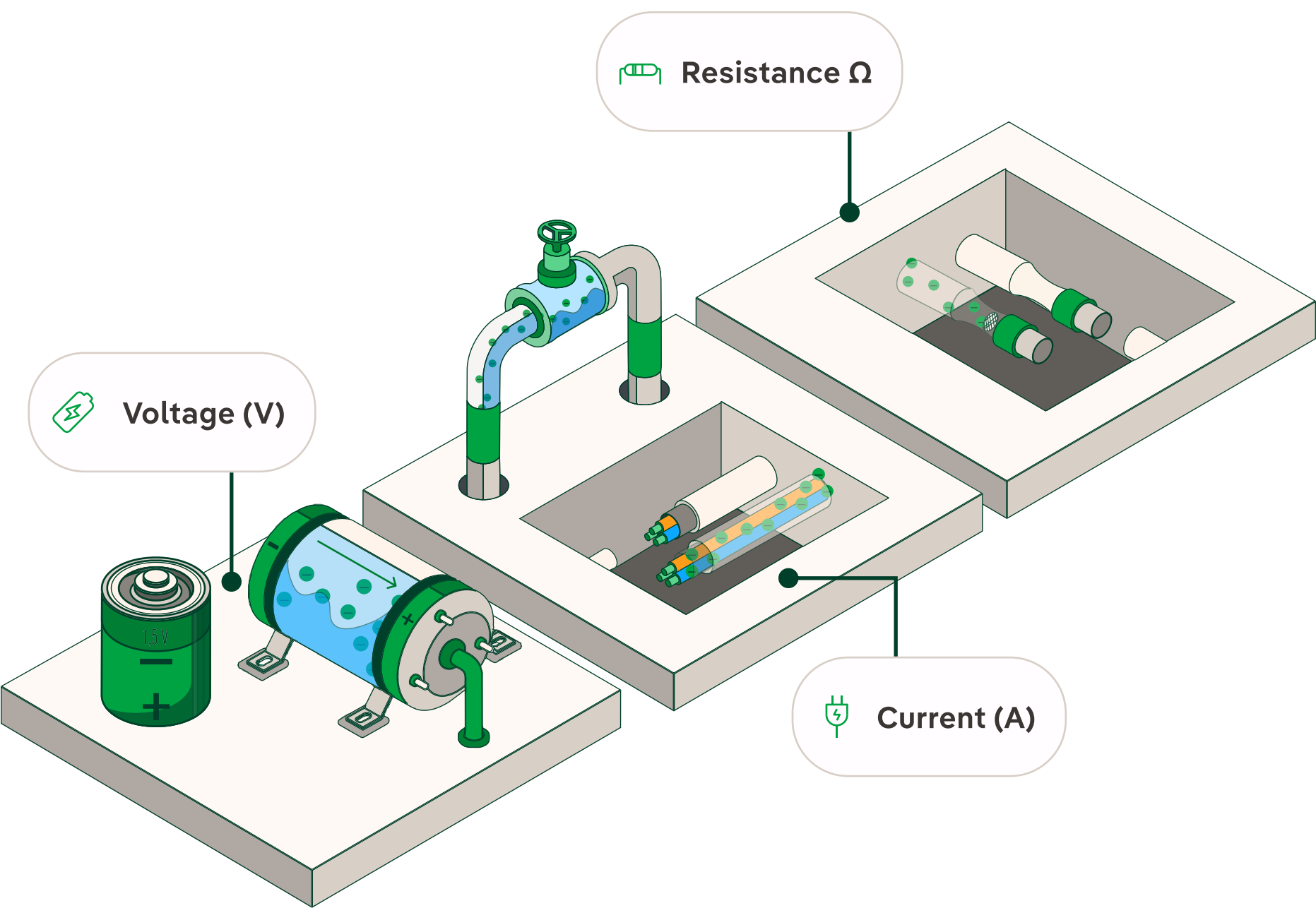


How does electricity work?

Voltage, current and resistance: the three forces that power your electrical devices.



	 Voltage (V)	 Current (A)	 Resistance Ω
Unit	Volt (V)	Ampere (A)	Ohm (Ω)
What is it?	The electrical force, or voltage , that pushes electrons from the negative (-) terminal towards the positive (+) terminal.	The amount of electric charge (electrons) flowing through a conductor over a given period of time – the electrical equivalent of water flow.	The opposition that electric current encounters as it passes through a material.
○ In practice	A 1.5 V battery doesn't indicate the amount of stored energy – it indicates the attractive force between its terminals. When a wire is connected, electrons flow towards the positive terminal, creating an electric current.	Moving electric charges generate a magnetic field around them, a principle that makes electric motors and electromagnets possible.	Materials such as copper offer very little resistance, making them excellent conductors. Plastics and rubber, by contrast, have very high resistance, making them effective electrical insulators that greatly reduce the flow of current.