

GEOGRAPHY · GRADES 5–6

Renewable Energy

Power that doesn't run out

Six renewable sources

Source	How it works	Best where	Watch out
Solar	Photovoltaic cells convert sunlight to electricity	Sunny, open land	No power at night, cloudy days
Wind	Turbines spun by wind drive a generator	Open coasts, hills, plains	Needs steady wind; some say turbines look ugly
Hydro	Falling water spins a turbine	Rivers, dams, mountains	Building dams disrupts ecosystems
Geothermal	Heat from inside the Earth makes steam	Volcanic regions	Limited to certain locations
Tidal	Movement of tides spins turbines	Coasts with strong tides	Expensive to build; affects marine life
Biomass	Burning plant or waste material — replanted	Farming regions	Still releases CO ₂ when burned

Why renewables matter

Most of the world's electricity has been made by burning fossil fuels (coal, oil, gas). These produce carbon dioxide that warms the planet. Renewables don't produce carbon dioxide while generating power. Switching to renewables is one of the biggest things humans can do to slow climate change.

