

HOW A HEAT PUMP WORKS

A heat pump moves heat from one place to another very efficiently. It works a bit like a **fridge in reverse!**



Heat pumps use electricity, but they move 3–4 units of heat for every 1 unit of electricity used.

1 HEAT IS COLLECTED

In winter, the ground below a certain depth stays around 8–12°C all year. The heat pump collects this stored heat.

2 HEAT IS ABSORBED

A liquid in the ground pipes absorbs the heat and turns into a gas (still low temperature).

3 HEAT IS BOOSTED

The gas goes into a compressor. Electricity powers the compressor, which increases the temperature of the gas a lot.

4 HEAT IS RELEASED

The hot gas passes through a heat exchanger inside the house. It gives out its heat to warm the rooms and hot water.

5 THE CYCLE REPEATS

The gas cools down, turns back into a liquid and flows back underground to collect more heat.



STEADY HEAT UNDERGROUND
Below a certain depth, the ground temperature stays fairly constant all year round, around 8–12°C depending on location.

8–12°C

