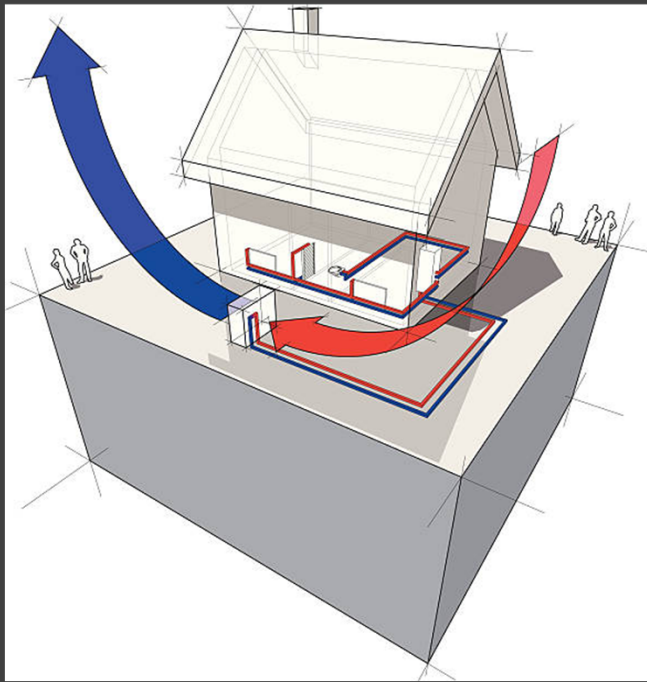


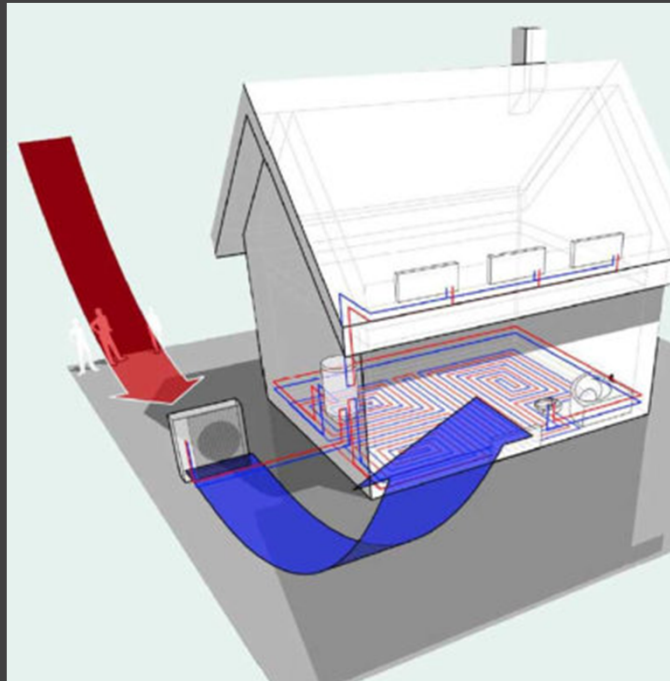
Thermal Comfort: Heating & Cooling w/ Heat Pump Systems

Air Source Heat Pumps (ASHP)



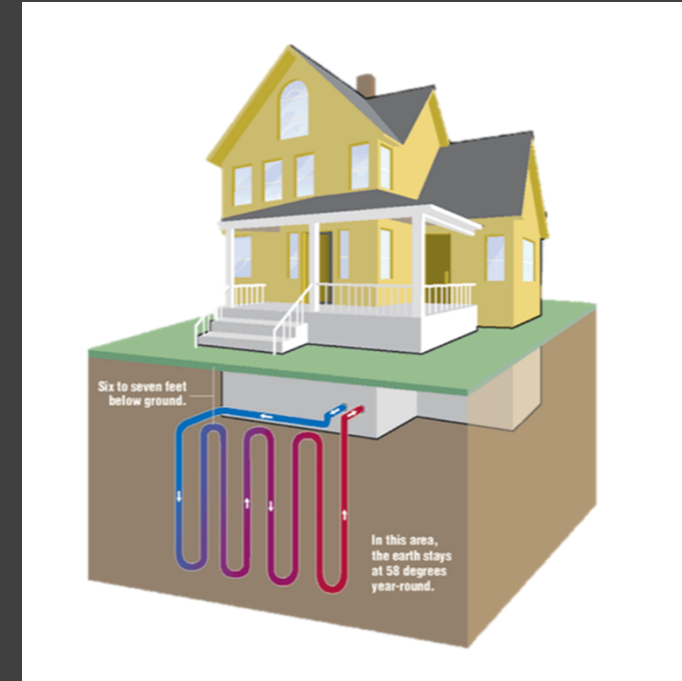
Outdoors: Air to refrigerant
Indoors: Refrigerant to air

Air-to-Water Heat Pumps (AWHP)



Outdoors: Air to refrigerant to water
Indoors: Water to air, or water to radiant surface

Ground Source Heat Pump (GSHP, aka *geothermal*)



Outdoors: Ground/water to refrigerant to water
Indoors: Water to air or water to radiant surface