

1 Heating system

1 Draw a line from each word to its opposite.

sink above bottom out of cold cool enter outlet push

hot inlet leave heat pull rise top below into

2 Rewrite the sentences. Change the words in *italics*. Use words with opposite meanings from question 1.

1 A solar panel *heats* water. A fridge ... → A *fridge* *cools* water.

2 *Hot* water *rises* to the *top* of a water tank. →

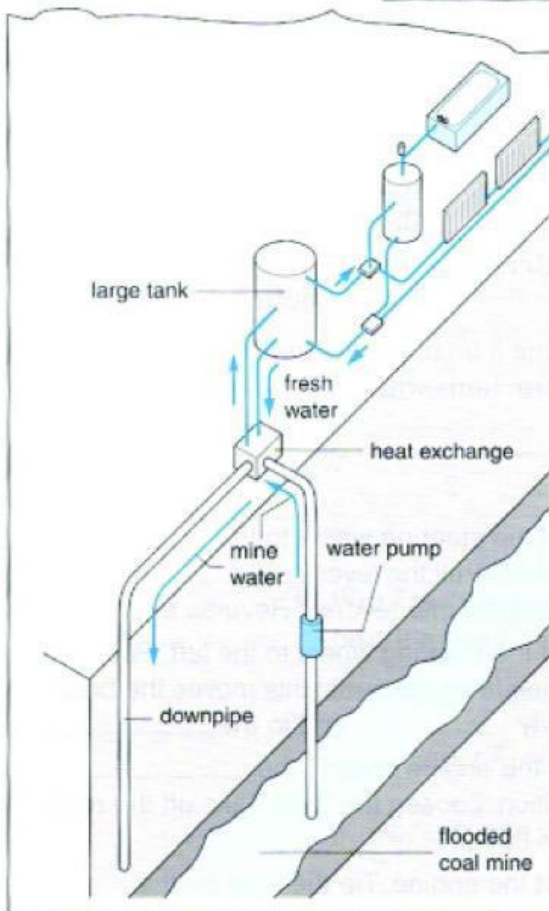
3 The *inlet* pipe for *cold* water is *below* the pump. →

4 Water *enters* the tank through the *inlet* pipe. →

5 *Push* the shower head *into* the pipe. →

3 Look at the diagram. Warm water comes up from underground and heats water for the houses. Use the verbs and prepositions in the box to complete the description of the heating system.

flow leave push rise above
below into through to out of



In this system, there are houses (1) a flooded coal mine. At 170 metres (2) _____ ground, the temperature of the mine water stays at 14.5 °C. The water pump brings up the mine water and (3) _____ it (4) _____ the heat exchanger. The mine water comes (5) _____ the heat exchanger and (6) _____ back into the coal mine (7) _____ the downpipe.

In the heat exchanger, the temperature of the fresh water (8) _____ to 55 °C. This warm water then flows to a large tank. Then it (9) _____ the large tank and goes (10) _____ the houses.

4 Word list

HEATING AND COOLING		PREPOSITIONS OF MOVEMENT	ELECTRICAL
NOUNS	VERBS		NOUNS
engine	blow	around	battery
fan	connect	into	cable
hose	control	out of	conductor
inlet	cool	through	controller
radiator	drive	to	electrical circuit
shower head	enter		electrical current
solar panel	flow		energy
thermostat	go		lamp
valve	heat		solar panel
water pipe	leave		switch
water pump	move		VERBS
water tank	pass		convert
	push		flow
	rise		shine
	sink		short-circuit

1 Complete the sentences with verbs from column 2.

- 1 Cold water _____ the system through the inlet.
- 2 Water _____ into the tank through a pipe.
- 3 The sun _____ the water in the solar panel.
- 4 Hot water _____ to the top of the tank.
- 5 Cold water _____ to the bottom of the tank.
- 6 Hot water _____ the system through the shower head.

2 Match the sentence halves.

- | | |
|---------------------------|-----------------------------------|
| 1 The water pump pushes | a) the temperature of the water. |
| 2 The thermostat controls | b) air through the radiator. |
| 3 The two hoses connect | c) the hot water from the engine. |
| 4 The fan blows | d) water around the engine. |
| 5 The radiator cools | e) the radiator to the engine. |