

Question number	Answer	Notes	Marks
6 (a) (i)	373 (K);	IGNORE any decimal places / degree sign REJECT negative values	1
(ii)	More (kinetic) energy / more quickly / faster / further apart (in steam) ; ACCEPT more freely	ACCEPT reverse argument for water REJECT vibration NB Must be a comparison	1
(iii)	Any three from: (Molecules) in motion / moving ; Bounce off / hit / collide with / strike inside of kettle ; Momentum changes ; There is a force (on the inside) ; pressure = force ÷ area OWTTE ;	IGNORE molecules hitting each other IGNORE push	3
(b)	Substitution $130 \times 820 = 101 \times V_2$ OR Rearrangement $V_2 = (130 \times 820) \div 101$; Answer = 1060 (cm ³) ;	Correct answer with no working gets both marks ACCEPT 1055 (cm ³) / or with further dp after 1055 (cm ³)	2
(c)	Pressure decreases; Any one from: Molecules move more slowly / have less kinetic energy ; Molecules hit sides with less frequently / often ; Less momentum change / force produced (per collision or overall) ; Pressure is proportional to temperature / $P \propto T$ (for constant volume) ;	NB "pressure increases / stays the same" scores zero for question	2

Total 9 marks