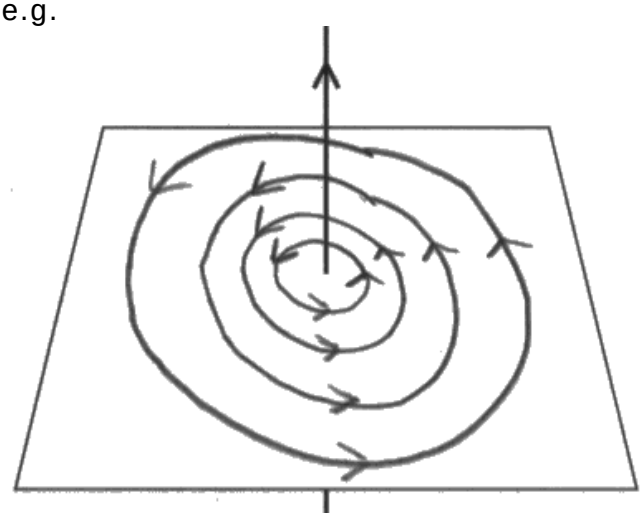
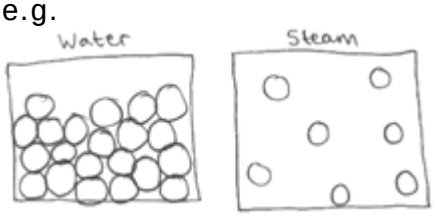
Question number	Answer	Notes	Marks
2 (a) (i)	MP1. single circle centred on the wire and parallel to the plane of the card;	allow gap where circle crosses wire circles do not have to stay within the card	3
	MP2. at least two concentric circles;	DOP ignore spacing	
	MP3. anti-clockwise direction arrow marked on at least one line;	reject if contradicting arrows	
	e.g. 		
(ii)	EITHER: MP1. iron filings used;	ignore references to magnets, other current-carrying wires being used allow iron powder, steel dust etc.	2
	MP2. tap card / eq.;		
	OR		
	MP1. (plotting) compass used;	allow use of a magnetometer	
	MP2. multiple compasses used / compass moved to new position;		
	OR		
	MP1. use of a magnet / another current-carrying conductor;		
	MP2. to produce a force / movement;		

Question number	Answer	Notes	Marks
3 (a)	any 2 of: MP1. particles gain kinetic energy / KE; MP2. particles move further apart; MP3. some particles escape / evaporate from the surface / become a gas/vapour;	allow particles move faster / vibrate more allow particles break bonds	2
(b)	comment about separation; e.g. particles in steam further apart comment about location of particles; e.g. steam particles fill container but water particles have a surface e.g.  = 2 marks	ignore comments referring to motion of particles allow steam takes volume of container but water doesn't allow marks if seen on a labelled diagram or writing	2
(c)	any 3 of: MP1. (average) speed / KE of particles decreases (when cooled); MP2. particles collide less often with the can; MP3. (when cooled) pressure inside the can decreases; MP4. pressure outside greater than pressure inside the can;	allow molecules for particles throughout allow 'particles join water' / steam condenses (into water) allow particles collide with the can with less force allow pressure proportional to temperature ignore references to vacuum allow RA	3

Total for question 3 = 7 marks