

PARTICULATE NATURE OF MATTER

- 1. D
- 2. D
- 3. B
- 4. C
- 5.

(a) speck of light B1
 that moves haphazardly/randomly/jerkily/etc. B1 [2]
 (b) randomness of collisions would be 'averaged out' B1
 so less (haphazard) movement B1 [2]
 (do not allow 'more massive so less movement')

6.

	ans		
(a)	Safety precaution liquid might overflow & ignitor vapour might ignite ANY TWO VALID COMMENTS	1 + 1	2
(b) (i)	cooling	1	
	solidifying	1	
	exothermic	1	
(ii)	37 °C	1	
(iii)	single melting temperature	1	
(iv)	room temperature	1	6

Total 8

7. (a) (i) A description to include:
- 1. particles moving;
 - 2. in all directions/randomly /
or implied by description (each other / walls);
- [Arrows on diagram acceptable] 2
- (ii) An explanation to include:
- 1. particles hit/collide with container walls;
 - 2. producing a force;
- 2
- (iii) pressure would increase/get bigger/larger; 1
- (b) statements 2, 3 and 4 ticked ; ; ;
 [If more than 3 ticked then deduct 1 mark for each error] 3

(c) An explanation to include two from:

1. temperature of air in tyre increases / hot / hotter;
 2. particles hit more often/hit harder;
 3. particles moving faster / more energy;
- plus one communication mark for presenting relevant information in a form that suits its purpose
- 2
1
[11]