

Q.	Answer	Mark	Additional Guidance
6. (a)	allow any one of: spring balance Newton meter force meter	1	
(b)	axes labelled correctly (1) suitable scale (1) plots (1) line (1) force on x axis (1)	5	
(c)	4.7 cm	1	in the range 4.5–5.0 inclusive
(d)	the length no longer increases by the same amount when the force is increased	2	
(e)	remove the force  if the spring is longer than answer to (c), it has gone past its elastic limit	2	
7. (a)	0.5 N	3	
(b)	it speeds up  there is an unbalanced force acting on it / gravity is the main force acting on it	2	
(c)	when it bounces, it loses some of its energy to thermal / sound	2	
(d)	the same	1	
8. (a)	28 800 Ncm	2	
(b)	960 N	2	
Total		60	