Question Number	Answer		Mark
3(a)	• Diagram showing rubber band suspended/clamped at one end (e.g. hanging from a clamp stand)	(1)	
	• Force applied to band (e.g. slotted masses hanging on free end)	(1)	
	• Measure initial length using a ruler **Or** mark position of bottom of band on ruler	(1)	
	• Measure new length/position and calculate extension	(1)	
	• Additional detail to improve accuracy e.g. method for reducing parallax **Or** additional detail to improve safety e.g. ensure feet are not under the masses in case they fall	(1)	**5**
	MP2-5 could be awarded for information shown on the diagram (e.g. metre rule and set squares seen on the diagram).		
	Allow MP3 and 4 for set-up where 0 on metre rule is aligned with end of band before masses are added, to measure extension directly.		
3(b)	• Estimates the area inside the loop by counting squares **Or** estimates the area inside the loop by using simple shapes	(1)	
	• Calculates the energy of each square **Or** calculates the energy for one shape	(1)	
	• Energy transferred = 0.85 to 1.00 J	(1)	**3**
	MP1 and 2 Accept calculation of area under both curves which are then subtracted		
	Example calculation 77 squares counted Energy of 1 square = 0.5 N × 0.025 m = 0.0125 J Energy transferred = 77 × 0.0125 J = 0.96 J		
	Total for question 3		**8**