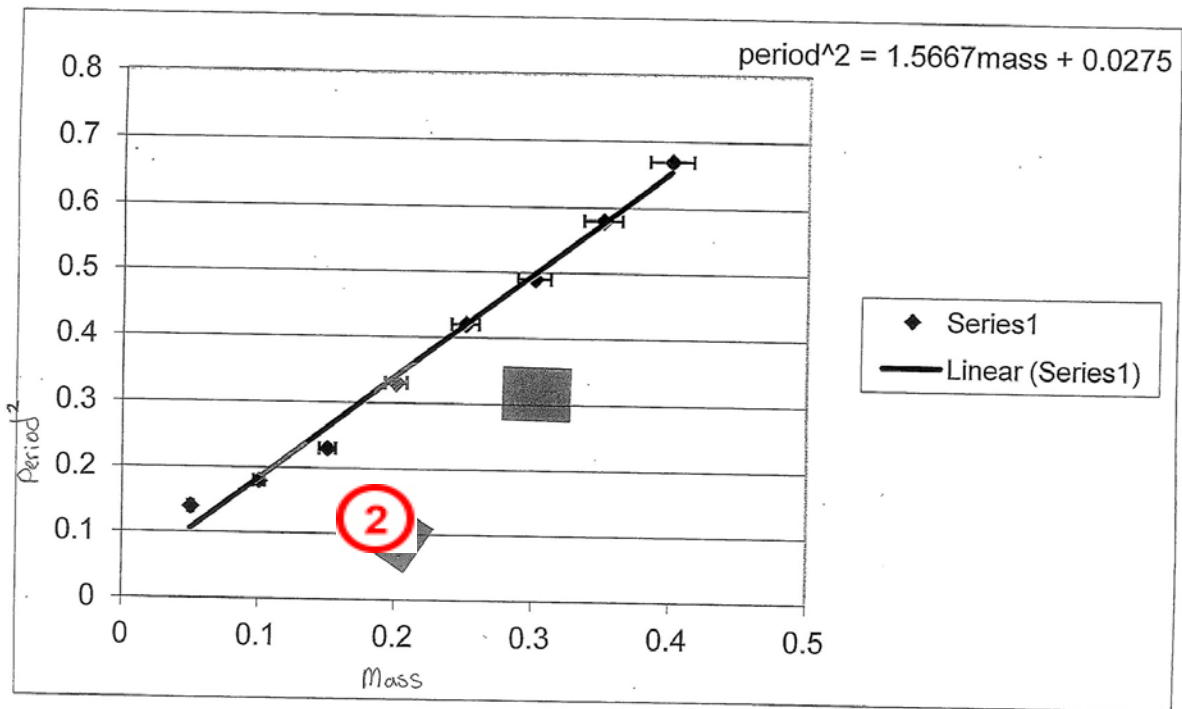


Student 6: High Not Achieved
 NZQA Intended for teacher use only



Dependant Variable - The period (t) Independent Variable - Mass (kg)

The spring constant was kept the same throughout the experiment as changing this would have affected the results somehow,

Techniques used to improve accuracy - multiples I measured the period as how long it took for the spring to take 10 oscillations and then divided that result by 10 to increase the accuracy of the single period.

Another method that I used to improve my accuracy was repeating the experiment for each weight several times then averaging the results of them to find the average period for one oscillation.

3 The relationship between the data as show by my graphs shows that the period² is equal to the 1.5667 multiplied by the mass.

1	mass (g)	10period (s) avg	mass (kg)	period T (s)
	50	3.74	0.05	0.374
	100	4.24	0.1	0.424
	150	4.78	0.15	0.478
	200	5.76	0.20	0.576
	250	6.5	0.25	0.65

300	6.97	0.30	0.697
350	7.6	0.35	0.76
400	8.19	0.4	0.819

to find uncert 10T 0.25 by 10T avg uncert 10T	mass uncertainty	K uncertainty
6.68%	4%	5%
5.90%		
5.23%		
4.34%		
3.85%		
3.59%		
3.29%		
3.05%		

Mass	Period squared
0.05	0.14
0.1	0.18
0.15	0.23
0.2	0.33
0.25	0.42
0.3	0.49
0.35	0.58
0.4	0.67

T uncertainty	uncertainty of m %multiplied by mass
0.25	0.002