

**Hooke's Law**  
**work sheet.**

**Virtual experiment**

Hooke's Law relates the extension of a material to the load it is under. In other words the extension of a material beyond its equilibrium length is directly proportional to the force acting on it.

Force = spring constant x extension,

$$F = k \cdot \Delta x$$

Find the spring constant of the spring in the virtual experiment by gathering results using the measuring tools provided. You may use the table below to record them. Then use the graph paper to plot your results. From the gradient you can find the spring constant. (Note that the zero on the scale does not necessarily correspond to the spring at its equilibrium length.)

Starting scale reading \_\_\_\_\_cm

Starting force \_\_\_\_\_N

Trial	Force /N	Scale reading /cm
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		

