

# Stretching springs

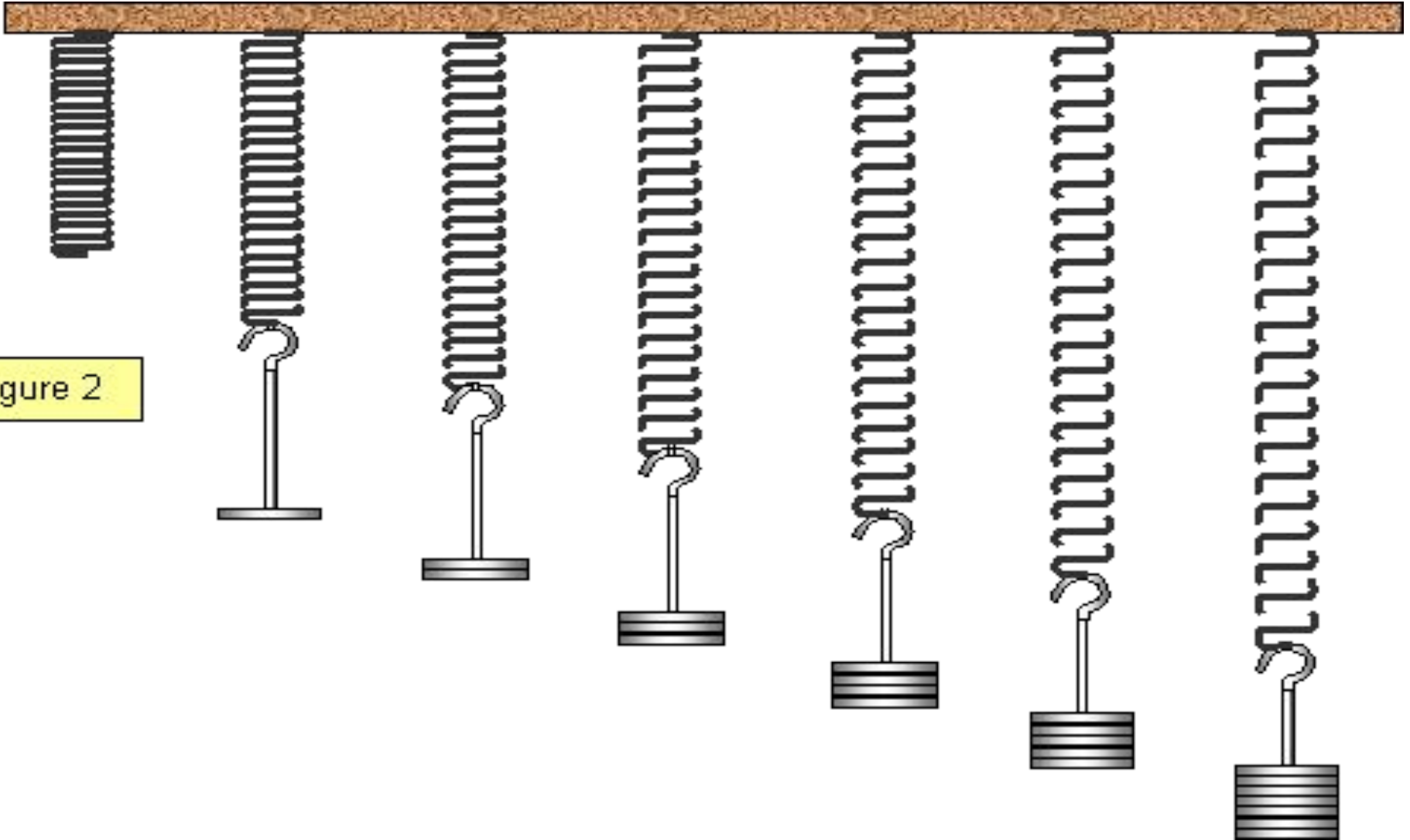
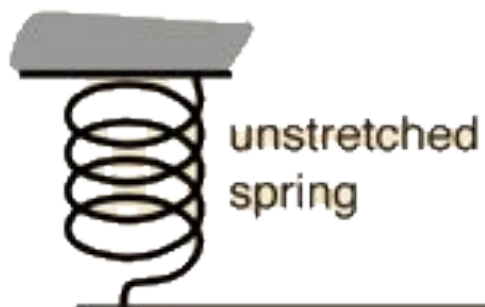


Figure 2

# Hooke's law



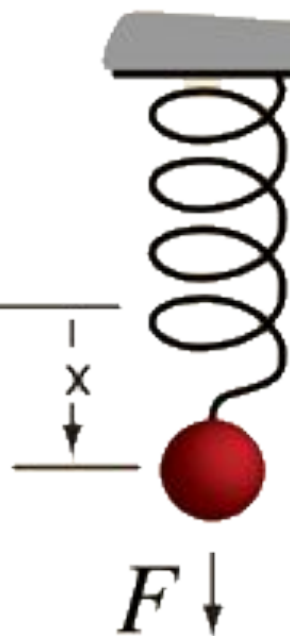
Robert Hooke  
(1635-1703)



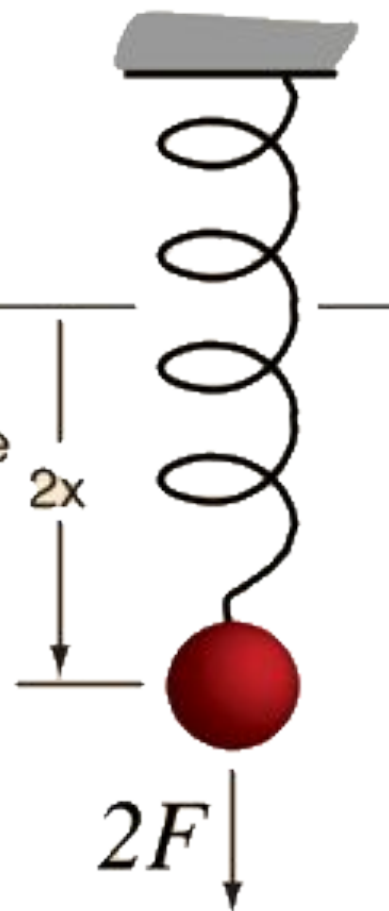
Hooke's Law:

$$F_{spring} = -kx$$

Spring constant  $k$



It takes twice  
as much force  
to stretch a  
spring twice  
as far.



$$F = kx$$

$F$  = Force applied on the spring

$k$  = spring constant

$x$  = extension of the spring