

## Hooke's Law

The relationship between force and stretch of spring in a mass-spring system.

$$F = -kx$$

F = Force (N)

k = Spring constant (N/m)

x = distance spring is stretched. (m)

$$F_w = mg$$

↳ force is mass x gravity

- ★ As force is increased, the distance the spring is stretched is increased.
- ★ As force is decreased, the distance the spring is stretched is decreased.