1 Work:

$$W = F \times s \qquad (\mathrm{kg\,m^2\,s^{-2}})$$

2 Change in Potential Energy:

$$\Delta G = mgh \qquad (\mathrm{J})$$

Where m is an object's **mass** (kg), g the **acceleration** ($\mathrm{m\,s^{-2}}$) due to gravity and h the **height** (m).

3 Kinetic Energy:

$$E_k = \frac{1}{2}mv^2 \qquad (\mathrm{J})$$

Where m is an object's **mass** (kg) and v its **velocity** ($\mathrm{m\,s^{-1}}$).

4 Power:

$$P = \frac{E_c}{t} \qquad (\mathrm{W})$$

Where E_c is the **energy converted** (J) and t the **time of conversion** (s).

$$P = Fv \qquad (\mathrm{W})$$

Where F is the **tractive force** (N) and v the **velocity** ($\mathrm{m\,s^{-1}}$).